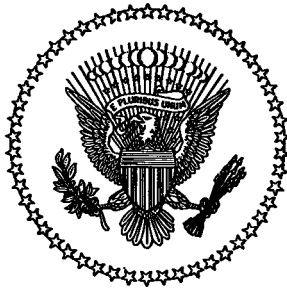


Economic Report

Economic Report of the President



Transmitted to the Congress
January 1981

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:

Over the next few years our country faces several economic challenges that will test the will of our people and the capability of our government. We must find ways to bring down a stubborn inflation without choking off economic growth; we must channel a much larger share of our national output to investment and reverse a decade-long decline in productivity growth; and we must continue to reduce the Nation's dangerous vulnerability to disruptive changes in the world supply and price of oil.

In this *Economic Report* I set forth my views on how we can best meet those problems. The following *Annual Report of the Council of Economic Advisers* discusses the challenges and the policy responses in greater detail. It is useful to start by recognizing that in many respects we approach these challenges from a position of strength, with a record of significant economic progress, and the knowledge that over the past 4 years our people and our government have successfully resolved a number of difficult and potentially divisive economic issues. While it would be folly to close our minds to the stubbornness of the problems we face, it would serve the Nation equally ill to underrate our strengths and our proven ability to handle difficult issues.

Strengths and Accomplishments

During the economic turmoil that characterized the decade of the 1970s, and especially during the past 4 years, the American economy succeeded in providing additional jobs for its people on a scale unsurpassed in our history. Employment grew by almost 25 percent over the decade, and by more than 11 percent in the past 4 years alone. Not only were jobs provided for a sharply rising population reaching working age, but job opportunities were opened up by the millions for new second earners, principally women. Neither Europe nor Japan came even close to the job performance of the American economy.

Along with employment, real per capita incomes grew during the past 4 years, despite the losses forced on the Nation by the huge increases in world oil prices and the effects of a slowing growth in productivity. As the year 1980 ended, per capita income, after taxes and adjusted for inflation, was some 8 percent higher than it was in 1976.

We have heard much about American industry losing its competitive edge in international markets and about the "deindustrialization" of America. In fact, during the 3 years prior to the onset of the 1980 recession—and the effects of that recession will be transient—the growth of industrial production in the United States was larger than it was in Germany, France, or the United Kingdom. The volume of American nonfarm exports rose by 35 percent between 1977 and the middle of 1980, and the share of U.S. exports among the total exports of the industrial countries rose by about 1¼ percentage points, reversing a declining trend that had been underway since the 1950s.

America's balance of payments is strong in large part because of its superior export performance. Despite a massive \$40-billion annual drain of funds to pay for the oil-price increases of 1979 and 1980, our exports of goods and services now exceed our imports. Unlike the situation in most other oil-importing nations, our country's external balance is in surplus.

The dollar is also strong. After a period of weakness in its value abroad, we took decisive action 2 years ago to stabilize the dollar. Since then, in a world of sharply changing circumstances and disruptions of oil supply, the dollar has remained strong, and has risen in value compared to most major currencies.

While it is imperative that our country increase the share of its national output devoted to investment, the reason is not that investment has been weak in recent years. Between 1976 and 1980, real business investment grew almost 6 percent a year, substantially faster than GNP as a whole. Because of that rapid growth the share of business investment in GNP during the past 3 years exceeded that of any other 3-year period in the last three decades.

There are other areas where the Nation has made more progress than we sometimes realize. While we are properly concerned to limit the growth in Federal spending and voice our impatience with the waste and inefficiency that often exist in government programs, we should not forget the good that has been accomplished with these programs. Examples abound. In the early 1960s, for instance, infant mortality in the United States was scandalously high compared to other countries, and most of that high mortality was concentrated among the poor. Due in large part to programs like Medicaid, infant mortality has fallen sharply. More generally, we have dramatically improved access to medical care for the poor and the aged. Through Federal grants we have strengthened the mass transit systems of our major cities and helped our municipalities install critically needed waste treatment plants. We have helped millions of young people, who could not otherwise have afforded it, get a college education,

and we have provided job training for workers who needed new skills.

Much attention is now focused on how to reduce the costs and ease the burden of Federal regulation to protect the environment, health, and safety. Concern about excessive regulatory costs is surely warranted, and my Administration has taken a number of specific steps to deal with the problem. In focusing attention on the burden of regulation, however, we should not lose sight of the substantial progress that has been made in enriching our lives, improving our health, and beautifying our country.

Tackling Difficult Issues

During the past 4 years the Nation has taken a series of important and in some cases painful steps to deal with its energy problems. Starting almost 2 years ago, we began to phase out controls on domestic oil and natural gas prices. We thus moved to end the dangerous practice of holding U.S. energy prices below the world market price, a practice which tended to subsidize wasteful consumption and perpetuate our excessive dependence on oil imports.

Working with the Congress we also put in place the other principal elements of a comprehensive program to increase energy production and conserve energy use. We levied a windfall profits tax to divert the inevitable windfalls from oil decontrol to pay for the National Energy Program initiatives and to reduce the impact of decontrol on the poor.

Partly as a result of these policies we have begun to see dramatic results in both the supply and conservation of energy. There are now 70 percent more drilling rigs in operation than when my Administration took office, and the number of oil and gas wells being drilled has reached a new record. By late 1980 the United States was importing almost 30 percent less oil than it did 2 years ago and our gasoline use had dropped by more than 10 percent over the same period. While some of the reduction in energy use was due to the recession, most of it reflects real energy conservation.

What has happened in energy policy over the past 4 years augurs well for our country's future. Decontrolling domestic oil and gas was painful. It pushed up the prices each of us pay for driving and for heating our homes and added to our immediate inflation difficulties. But we showed that we were willing to take such painful steps when they were necessary in our Nation's longer-run interest. Because we are large-scale producers as well as consumers of energy, the energy problem was potentially a highly divisive issue in our country, involving the redistribution of hundreds of billions of dollars, pitting producer against consumer and one region of the Nation against another. But after prolonged and sometimes heated debate, we arrived

at an approach that took account of the legitimate concerns of all groups and at the same time furthered the national interest. Dealing with the Nation's remaining economic problems will also require painful measures and the reconciliation of a number of different interests. Our handling of the energy problem should raise our confidence that we can be successful elsewhere.

We have also had major successes in other fields. After decades of inaction, the past 4 years have seen the elimination of price-propping and competition-deadening regulations in a number of American industries. In these 4 years we witnessed more progress in economic deregulation than at any other time in the century. In the face of great skepticism and initial opposition, the executive branch, the Congress, and some of the independent regulatory agencies have deregulated or drastically reduced regulation in the airline, trucking, and railroad industries, and in banking and other financial institutions. We have also made a promising start in the communications industry. The transportation, communications, and finance industries comprise a triad that links the various strands of our economy together. Better performance in these industries should have effects far beyond their own boundaries.

The gains from deregulation will be substantial. For example, productivity and efficiency will be directly increased as transportation load factors are improved and empty backhauls reduced. One survey of studies estimates that reform in the trucking industry alone will lead to \$5 billion in annual cost reductions. Even more important will be the longer-run spur to innovation and the increased flexibility that comes from opening up these industries to the fresh winds of competition.

Population trends will be working to help the country deal with some of its economic problems in the 1980s, whereas in the late 1960s and 1970s these trends required some difficult adjustments. The generation of the postwar baby boom began entering the labor market in the 1960s and the influx of new workers continued during the 1970s. The percentage of the population aged 16 to 24 rose sharply. And as birth rates slowed, women entered the labor force in ever increasing numbers. On average, the labor force became less experienced, and average productivity per worker suffered. The increased proportion of women and young people in the labor force also contributed to an increase in the average unemployment rate because the transition from school or home to job takes time and because these new workers sometimes had periods of unemployment as they explored different career possibilities.

Because of the slowdown in birth rates in the past 15 years, the 1980s will see about half as fast a growth in the labor force as in the

1970s. The proportion of experienced workers will rise, contributing to an increase in productivity, while the proportion of young people will fall, leading to a drop in unemployment.

There are a number of reasons, therefore, to confront with hope the economic challenges that face us. We have a solid record of achievement. In the fields of energy and deregulation we have already laid the foundations on which the future can build. And there are some favorable trends underway that should help raise productivity and reduce unemployment in the years ahead.

Unresolved Problems

Despite much progress in recent years, we are faced with some serious problems. An inflation that was already bad became worse after the 1979 oil-price increase. Productivity growth, which had been declining sporadically for a decade, virtually ceased in the last several years. And although we have made substantial progress in adapting our economy to a world of higher oil prices, we remain dangerously vulnerable to serious supply disruptions originating abroad.

These problems are closely related to each other. Our inflation stems in part from our oil vulnerability and our slowing productivity growth. High and rising inflation, in turn, tends to cause economic reactions that depress productivity. As we make progress in one of these areas, we will also make progress in the others.

None of the problems is so intractable that we cannot overcome it. But all are so deep-seated that progress will come slowly, only with persistence, and at the cost of some sacrifice on the part of us all.

Inflation

In the first half of the 1960s inflation averaged about 1 percent a year, so low as to be virtually unnoticeable. In the past 15 years, however, the underlying rate of inflation has risen sporadically but inexorably and it is now running at about 10 percent a year.

During those 15 years there have been three major episodes in which the rate of inflation surged upward. The first came in the late 1960s, when the Vietnam war and the Great Society programs were financed for a number of years without a tax increase. The consequent high budget deficits during a period of economic prosperity generated strong inflationary pressures as total spending became excessive relative to the Nation's productive capacity. The second inflationary surge, which came in the early 1970s, was associated with the first massive oil-price increase, a worldwide crop shortage which drove up food prices, and an economy which again became somewhat overheated in 1972 and 1973. The third inflationary episode came in 1979 and 1980. It was principally triggered by another massive oil-price increase, but part of the rise in inflation may also have

been due to overall demand in the economy pressing on available supply. Throughout the past decade, the slowing growth in productivity has pushed up the increase in business costs, adding its bit to the rise of inflation.

Late in each of the three inflationary episodes monetary and fiscal restraints were applied, and at the end of each a recession took place, with rising unemployment and idle capacity. Inflation did fall back somewhat, but at the end of each recession it had not declined to the level from which it started. And so the inflationary process has been characterized by ratchet-like behavior. A set of inflationary causes raises the rate of inflation; when the initiating factors disappear, inflation does not recede to its starting position despite the occurrence of recession; the wage-price spiral then tends to perpetuate itself at a new and higher level. Instead of an occasional 3 percentage point rise in inflation, which disappeared when the initial causes of the inflation were gone, our basic inflation rate rose first from 1 to 4 percent, then from 4 to 7 percent, and in this latest episode from 7 to 10 percent. It is this downward insensitivity of inflation in the face of economic slack that has given the last 15 years their inflationary bias.

A number of facts that are important for economic policy can be drawn from this history. *First*, excessive demand in the economy, fed by an overly large Federal budget deficit or excess growth in the money supply, was the major factor in one of the three inflationary episodes and played a subsidiary role in the other two. *Second*, twice in the last decade the tendency for government to stimulate the economy somewhat too freely during the recovery from recession probably played a role in retarding the decline of inflation or renewing its acceleration. That is why I was so insistent that a tax cut designed for quick economic stimulus not be enacted last year. *Third*, because the rate of increase in wages and prices did not decline very readily in response to the discipline of budgetary and monetary restraint, that restraint resulted only partly in reduced inflation; it also tended to retard the growth of output and employment. *Finally*, massive increases in world oil prices have twice in the past 7 years helped trigger a major inflationary episode. While we cannot eliminate our vulnerability to such shocks, a reduction in that vulnerability will improve our chances of avoiding new inflation in the future.

These realities dictate the broad tasks that economic policy must accomplish over the years ahead:

Our monetary and fiscal policies must apply steady anti-inflationary restraint to the economy. The restraint must be strong and persistent enough to convince those who set wages and prices that the government means to stand by its guns in the anti-inflation fight. But it must not be so severe or so restrictive as to prohibit even moderate economic

growth and recovery, and thus collapse under its own political unreality.

We must seek means to reduce inflation at a lower cost in lost output and employment. These include measures to increase investment, the reform of regulation, and incomes policies. An increase in investment raises productivity growth which, in turn, tends to slow the rise in business costs and prices. Demand restraint will then produce more reduction of inflation and less reduction in output. Measures to lower regulatory costs and increase competition and flexibility in our economy will also directly lower inflationary pressures and let us have more economic growth without sacrificing our inflation goals. An improved set of voluntary incomes policies can directly influence wages and prices in the direction of moderation, and thereby bring inflation down faster and at lower costs.

Finally, we must build upon the foundations already laid and hasten our progress toward energy conservation and increased domestic energy supplies. We must also work to improve our capability of weathering a severe disruption in foreign oil supplies, since even a highly successful energy program will still leave our economy vulnerable to such disruptions over the coming decade.

Last August I outlined an Economic Revitalization Program that would accomplish the tasks set forth above. The specific economic policies I am recommending to the Congress in my 1982 *Budget Message* and in this *Economic Report* incorporate the elements of that revitalization program.

Budget and Tax Policies

It is now estimated that the Federal budget for the current fiscal year 1981 will be in deficit by \$55 billion, substantially more than I had hoped or planned. In part the size of that deficit reflects the loss of revenues induced by the recession from which our economy is now beginning to recover. Had the unemployment rate remained at the 6 percent level where it stood when I first submitted the 1981 budget last year, the deficit would now be less than \$20 billion.

The size of the 1981 deficit also reflects three major factors which have driven up the estimates of Federal spending in the past 12 months. *First*, higher interest rates since the budget was originally submitted have added about \$9 billion. *Second*, payments under many Federal programs, such as social security, are indexed to the consumer price index, which has proven in recent years to overstate significantly the actual rise in the cost of living because of the way it treats housing and mortgage interest costs. And *third*, defense spending was increased above original estimates.

As part of a program of anti-inflationary fiscal restraint I am recommending a number of steps that will help to cut the deficit in half,

to \$27.5 billion in the new budget for fiscal year 1982, and reduce it still further to \$8 billion in 1983, despite the substantial increases in defense spending which I find it necessary to recommend for those years:

- Beyond exerting strict control over requests for new appropriations for ongoing programs, my 1982 budget sets forth a detailed list of requests to the Congress for the legislation needed to pare some \$9 billion in spending in both fiscal 1982 and fiscal 1983. If enacted, these savings would help make possible a reduction in the share of GNP taken by Federal spending from 23.3 percent in 1981 to 23.0 percent in 1982 and 22.6 percent in 1983.
- The personal tax reductions which I am proposing should take effect on January 1, 1982, rather than at some earlier date in 1981.
- I am renewing my request to the Congress for a modest increase in the tax on gasoline; there is no better way to provide additional revenues for reducing the budget deficit than a measure which simultaneously reduces our imports of foreign oil.
- I still strongly support the national health insurance proposal that I earlier submitted to the Congress, but the need for budgetary restraint to control inflation requires that its introduction be delayed until more budgetary room is available and adequate cost containment is in place.

In order to avoid repetition of the recent situation in which many Federal payments rose too rapidly because they are tied to an index which does not accurately reflect changes in the cost of living, I am recommending that the Congress authorize use of a more representative index. I am informed by the Commissioner that the Bureau of Labor Statistics is now producing an index of this type and that it can quickly be made available on a timely basis.

Although my 1982 budget emphasizes the need for fiscal restraint, and for reduction of the deficit, it also takes the first major step in a long-term program of tax reductions aimed at increasing capital formation.

The causes of the longer-term slowdown in productivity growth are many—and some of them are still unknown. But a major depressing factor has been the failure of the Nation's capital stock to increase relative to its rapidly growing labor force in the past 5 or 6 years. Unlike earlier periods, American workers have not been working with increasing amounts of capital. Improving the trend of productivity growth will require restoring the growth of capital per worker.

Higher investment will also be critically required throughout America's energy-using industries to speed up the replacement of

older energy-inefficient plant and machinery with newer energy-saving capital. In addition, a large expansion of energy-producing industries—both conventional and nonconventional—will add further to investment needs.

According to estimates made by my Council of Economic Advisers, the combined tasks of restoring the earlier growth of capital per worker and meeting the Nation's energy needs call for an increase in the share of investment in GNP from its recent 10½ percent to 12½ or 13 percent during the 1980s. This would require an expansion in investment by about one-fifth above the level that might normally be expected. It will not occur without the introduction of policies to make it happen.

To begin this task, my 1982 budget incorporates the two major changes in tax laws that I outlined last August in my Economic Revitalization Program to improve incentives and provide increased sources of financing for business investment. The first and most important proposal is a major liberalization of tax allowances for depreciation. Because tax depreciation is now based on the historic cost of an asset, inflation reduces allowable tax deductions relative to the cost of replacing an asset and thus lowers the profitability of investment. Inflation also distorts the tax treatment of assets with different useful lives. I am proposing a new approach to depreciation worked out by the Department of the Treasury which substantially simplifies depreciation accounting and increases the allowable rates of depreciation by about 40 percent. This approach, unlike some other depreciation liberalization proposals that have been introduced in the Congress, tends to avoid major distortions of economic incentives since it provides approximately equal percentage increases in allowable depreciation rates for each industry.

I also propose that the Congress expand investment incentives by improving the investment tax credit. That credit is now only partially available for short-lived assets; it should be made fully available. Even more importantly, part of the investment tax credit should be made refundable. Firms should be able to claim 30 percent of the value of the credit even if they had no tax liabilities for the year. In this way firms with substantial investment needs but with no current earnings can be supported in their efforts to rejuvenate and expand capital assets. Among these are younger and smaller firms that are just beginning to grow, and larger industries undergoing transition, such as autos and steel. The latter may temporarily be experiencing depressed profitability but still have major investment needs for re-tooling or for new industrial facilities.

These two proposals would reduce business tax liabilities by \$9 billion in calendar year 1981, \$15 billion in 1982, and by 1985 the re-

ductions would amount to over \$27 billion. We estimate that with enactment of these new incentives business investment should increase 5-10 percent above its normally expected level in 1982, with additional gains thereafter.

While providing additional incentives for business investment, we can also move on a carefully phased basis to reduce other taxes in a way that improves both economic efficiency and tax equity. The Congress should enact an income tax credit for both employers and employees that would approximately offset the scheduled rise in social security payroll taxes that occurred in January of this year. To make the benefits available to lower-income workers who have no tax liability, I also propose an increase in the earned income tax credit. But, as I pointed out earlier in this *Report*, the critical importance of reducing the budget deficit as part of the fight against inflation has led me to recommend that this reduction take effect at the beginning of 1982, by which time the growth of revenues will make such a reduction consistent with overall budgetary objectives.

At the present time one of the major inequities in our tax system is the so-called marriage penalty. Under a wide range of circumstances a husband and wife, each working, will together pay a higher tax than if they were not married. I propose that this penalty be eased by making a tax credit available to the lesser-earning spouse. The credit should be introduced in two steps, half in 1982 and the other half in 1983.

I also propose that the Congress enact several important tax reforms: income from interest and dividends should be put on an equal footing with wages and other incomes by withholding taxes at the source; the excessive issuance of several types of tax-exempt bonds should be curtailed; and the use of certain commodity futures transactions as a tax avoidance scheme should be prohibited.

The central feature of the tax policies I am proposing is their emphasis on increasing investment. By 1985, an unusually high 45 percent of the tax reductions will be directed toward spurring investment. But even this will not itself be sufficient to raise investment to the levels our country will need in the decade ahead in order to improve its productivity growth and deal with its energy problems. Careful control of Federal spending, however, will create the leeway for additional investment-oriented tax reductions in later years, within the framework of the overall budgetary restraint required to fight inflation. I do not believe that we should now commit budgetary resources to large-scale personal tax cuts which will stimulate consumption far more than investment and thereby foreclose the possibility of meeting the Nation's critical investment requirements.

Monetary Policy

Monetary policy is the responsibility of the Federal Reserve System, which is independent of the Executive. I respect that independence. But there are several broad aspects of monetary policy having to do with public perceptions that do fall within the purview of the President in his role as national leader.

Sustained restraint in monetary policy is a prerequisite to lowering inflation. The Federal Reserve exercises this restraint principally by keeping a strict limit on the growth of the Nation's money supply. In October 1979 the Federal Reserve modified its earlier policies and operating procedures to increase sharply the emphasis it gives to controlling the money supply. The Federal Reserve each year sets targets for monetary growth and seeks to hold the growth of the money supply within the targets. Increasingly the public in general and the financial community in particular have come to associate the credibility of the Federal Reserve and its determination to fight inflation with its success in keeping money growth continuously within the preannounced targets. It is very important, however, that public opinion not hold the Federal Reserve to such a rigid form of monetary targeting as to deprive it of the flexibility it needs to conduct a responsible monetary policy.

Temporary fluctuations in monetary conditions can sometimes cause the money supply to overrun or underrun the targets for a short period of time without any damage to anti-inflation objectives. Furthermore, economic developments occasionally occur that may make it appropriate for the Federal Reserve to modify the targets it had originally set, or to deviate from its announced aim of lowering the targets each year. If the public interprets occasional necessary changes in the longer-run monetary target ranges or short-run deviations of actual money growth from those targets as evidence that the Federal Reserve has lessened its determination to fight inflation and as a reason to expect higher inflation in the future, the Federal Reserve is confronted with an untenable situation. If it fails to make the adjustment in the monetary targets that is called for by a major change in economic circumstances, monetary policy may produce unwanted results. But if the Federal Reserve does change the targets in the face of public misunderstanding, it risks an impairment of its credibility. The same dilemma exists with respect to allowing short-run deviations in money growth from the target ranges.

Only if the public understands the realities, and the complexities, of carrying out an anti-inflationary monetary policy can the Federal Reserve successfully apply the measured restraint necessary to wring out inflation at minimum cost in production and jobs. On the one hand, the country must face the fact that in a world with a stubborn

10 percent inflation rate, keeping a tight rein on the growth of the money supply inevitably leads to interest rates that average significantly higher than those we were accustomed to in earlier periods of lower inflation. On the other hand, the public and the financial community must not become so obsessed with the mechanics of monetary targeting that any change in targets or any short-run deviation of money growth from those targets is taken as a sign that monetary restraint has been weakened.

Without reasoned and persistent monetary restraint, inflation cannot be licked. Perhaps more than in any other area of economic policy, however, achieving success in monetary policy depends on an informed public opinion.

Incomes Policies

For the past 2 years my Administration has urged business and labor to comply with a set of voluntary pay and price standards. Even though it was introduced at a very difficult time—just before the oil-price explosion of 1979—this voluntary program of wage and price restraint did moderate the pace of inflation. It significantly reduced—although it could not eliminate—the effect of the oil-price rise on the underlying inflation rate.

After 2 years of operation there is general agreement that the current pay and price standards would not continue to be effective in their present form and without additional support. For this reason we have carefully examined the possibility of strengthening a voluntary incomes policy by using the tax system to provide incentives to firms and workers to slow the rate of inflation. This approach has been labeled a tax-based incomes policy (TIP). The detailed results of our review are contained in the accompanying *Annual Report of the Council of Economic Advisers*.

Broadly, we have concluded that an approach which provided a tax reduction to workers in firms whose average pay increase did not exceed some standard, set as part of a voluntary incomes policy, would be feasible and effective in helping to lower inflation. Two major conditions apply, however. *First*, such a policy must be a supplement to, not a substitute for, fiscal and monetary restraint. Without such restraint an incomes policy will produce only fleeting reductions in inflation or none at all. *Second*, a TIP program is likely to be desirable only on a temporary basis. After several years, such a program might cease to be effective and could induce significant distortions into wage relationships throughout the economy. But as an interim device to hasten the reduction in inflation and so shorten the period of reduced output and employment growth, a TIP program could serve the Nation well.

If the growth of Federal spending is restrained, periodic tax reductions will be both feasible and necessary in the years ahead as inflation and economic growth push taxpayers into higher brackets and raise average effective tax rates. Tax-based incomes policies are novel, and most people are unfamiliar with either the opportunities they present or the difficulties they pose. It is therefore highly unlikely that a TIP program could take effect in 1981. But it would be useful for the public in general, and the Congress in particular, to begin now to evaluate the pros and cons of TIP programs so that when the time comes for the next round of Federal tax cuts a TIP program will be seriously considered.

Energy

I am once again proposing that the Congress increase the Federal excise tax on gasoline by 10 cents per gallon as an additional incentive to cut petroleum consumption. The need for this tax is, if anything, even greater than it was 7 months ago when the Congress overturned my action to impose a gasoline conservation fee administratively.

We have once more seen a tightening of world oil supplies. The massive inventories built up in late 1979 and early 1980 have been drawn upon to make up for the loss of exports from Iran and Iraq. If that conflict should continue or if exports do not return to normal, the buffer which those record high inventories provided will be exhausted. Even in the last 2 months, we have seen significant escalation in prices charged by some OPEC members. National security requires us to put additional downward pressure on consumption of gasoline and other petroleum products. If we do not, OPEC may do it for us.

Paradoxically, one of the reasons given earlier for rejecting my proposed tax was that it was too small—some would have preferred a tax of 50 cents or even a dollar per gallon. Whether, over time, this Nation should move toward gasoline taxes that are comparable with those of our Western European allies is not a question that has to be answered now. In any event, to do so overnight would shock the economy excessively. At current gasoline consumption levels, a 50-cent per gallon tax would draw approximately \$50 billion per year out of consumers' pockets and require excessive adjustments by consumers and industry. It is much more sensible to start with the level I have proposed.

There is other important unfinished business to attend to in energy. The Congress failed to complete work on my proposed Energy Mobilization Board, but events since August of 1979 have only made the case for the Board's creation more persuasive. It is equally important that we move ahead with the production of substi-

tutes for petroleum. The Synthetic Fuels Corporation is established and operating. Its mission—to encourage commercial-scale production of synthetic fuels through risk-sharing with American industry—is vital.

My program of phased decontrol of domestic crude oil, along with the revamping of natural gas pricing policy contained in the Natural Gas Policy Act, is paying rich dividends. Drilling and seismic exploration have reached near-record levels. The Natural Gas Policy Act should be reviewed, however, to ensure that progress toward decontrol of new natural gas is not jeopardized by the increasing gap between oil prices and their natural gas equivalent, since world oil prices are now about twice those assumed in the act.

Our contingency planning to deal with a severe oil-supply disruption needs to be improved, since the authorities upon which many of the existing plans are based will expire at the end of September of this year. We have had underway for some time an examination of which, if any, of these authorities should be extended and what additional authorities might be required. This work should be completed as soon as possible.

Filling of the Strategic Petroleum Reserve must continue. The rate of fill should be at least the 100,000 barrels per day required by the Energy Security Act, and should, beyond that, be as high as can be accommodated without disrupting world oil markets.

Increasing the Flexibility of Our Economy

Energy is not the only area where we must take additional steps to improve the ability of the economy to adjust to the changes that will be demanded of it in the years ahead. To the extent that we can reduce barriers to the flow of labor, capital, and other resources from inefficient to efficient uses, we can reduce inflationary pressures that arise from bottlenecks and economic rigidities and simultaneously speed up the pace of productivity growth.

We should not lose the momentum that has developed over the past 4 years in reducing obsolete and costly economic regulations. The Congress should complete its deliberations and pass legislation similar to that which I suggested last year to complete the task of modernizing our system of telecommunications regulation.

In the broad area of environmental, health and safety regulation, where deregulation is not an appropriate solution, we must expand on the successful beginning that has been made in providing greater flexibility and incentives for firms to meet environmental requirements in more cost-effective ways.

We must also continue our efforts to assure that the Nation's regulatory priorities are sensible. Our Nation can afford a cleaner environment, safer products, and healthier workplaces, but it does not

have unlimited resources. Other national goals cry out for attention, and we cannot afford waste in attempting to achieve any of them.

During the coming years, when many of our most important industries will be facing difficult adjustment pressures, we must avoid taking shortsighted actions which block rather than promote this adjustment. Federal policies should indeed cushion the blow when sharp external shocks force an industry, its workers, and the communities within which it is located to undergo massive change in a short period of time. The programs of economic development and trade assistance which exist to meet these needs should be humanely and effectively administered. But such aid must be aimed at facilitating adjustment to change, not preventing it. While we can and should demand that all nations abide by internationally agreed-upon rules of trade, we must avoid the temptation to use the discretion open to us to prop up weak industries.

Summing Up: The Need for Balance

In the years immediately ahead, our country will be wrestling with two central domestic issues. The first is economic in nature: How can we reduce inflation while maintaining the economic growth that keeps our people employed? The second is even broader: What is the proper role of government in our society as spender of tax revenues and regulator of industry?

I am confident we can successfully come to grips with both of these issues. We would make a costly mistake, however, if we approached these problems with the view that there is some single answer to the economic problem and a single criterion for determining the role of government. The resolution of both of these great issues demands a balancing of many approaches and many considerations. Indeed, the only helpful simple proposition is the one which states that any simple and quick answer is automatically the wrong one.

The approach I have set forth in this *Report* will successfully meet the economic challenge. But it relies on not one but a number of essential elements. To reduce inflation we must be prepared for a period of sustained budgetary and monetary restraint. But since we know that this also tends to depress the growth of output and employment, we must not conclude that the greater the restraint the better. We want a degree of restraint that takes into account society's interest in employment and production as well as its concern to lower inflation. We can improve our prospects significantly by introducing investment-oriented tax cuts that increase supply and productivity. But the supply response will not be so quick or so great as to constitute an answer in and of itself. And, in particular, it would be very dangerous to make budgetary policy in the belief that the supply

response can be so large as to wipe out the need for fiscal prudence and budgetary restraint. We can improve our prospects still further by the use of voluntary incomes policies, strengthened when budgetary resources become available by tax incentives for wage moderation. But, again, incomes policies alone will not do the job. If we try to rely on them excessively, we will do more harm than good. Only with a balance among the various elements, and only with persistence in the realization that sure progress will come gradually, can we have both lower inflation and better growth.

Sorting out the proper role of government also requires us to strike a balance. At times Federal spending has grown too rapidly. But in recent years its growth did not result from the introduction of a host of new government programs by spendthrift politicians or a surge of profligacy by wasteful bureaucrats. It stemmed mainly from two sources: *first*, increased military spending to meet national security goals that are overwhelmingly supported by the American people; and *second*, the growth of long established and broadly accepted social security and social insurance programs that are directly or indirectly indexed against inflation or automatically responsive to an increase in unemployment.

There is some waste. There is some abuse. I have instituted a number of reforms to cut it back. I am sure my successors will continue this important effort. But waste and abuse are not the fundamental issues. The essence of the challenge that faces us is how to balance the various benefits that government programs confer on us against their costs in terms of higher taxes, higher deficits, and sometimes higher inflation.

It is my view that we must strike the balance so as to restrict for some time the overall growth of Federal spending to less than the growth of our economy, despite the faster increase of the military component of the budget. As a consequence, in my 1982 budget I have proposed a series of program reductions. I have suggested a delay in the effective date of new programs I believe important. I have recommended improvements in the index we use to adjust Federal programs for inflation.

I think we will do a better job in striking the right balance over the years ahead if we keep two principles in mind: The first is to recognize *reality*. The choices are in fact difficult, and we should not pretend that all we have to do is find wasteful programs with zero benefits. The second is to act with *compassion*. Some government programs provide special benefits for the poor and the disadvantaged; while these programs must not be immune from review and reform, they should not bear the brunt of the reductions.

The same general viewpoint is appropriate when we approach the problem of government as regulator, especially in protecting the environment, health, and safety. When we first awoke to the fact of generations of environmental neglect, we rushed to compensate for our mistake and paid too little attention to problems of cost and effectiveness. Sometimes the laws we passed and the deadlines we set took too little account of their economic impact. For 4 years my Administration has been engaged in a major program of finding ways to make regulations more cost-effective and to strike a reasonable balance between environmental concerns and economic costs. A strong foundation has been laid. Much remains to be done. But lasting progress will not come unless we realize that there is a balance to be struck. Those who believe that virtually all regulation is bad and that the best regulation is a dead regulation will come to grips with the real problem no more successfully than the enthusiasts who believe that concern with regulatory costs is synonymous with lack of concern for the environment.

I believe that the government has indeed overregulated and that regulatory reform must continue to be a major objective of the Federal Government, as it has been during my Administration. But I also believe that true reform involves finding better ways to identify and to give proper consideration to gains as well as costs.

My reading of the distant and the nearby past gives me confidence that the American people can meet the challenges ahead. There are no simple formulas. There will be no quick victories. But an understanding of the diverse concerns we have, a pragmatic willingness to bring to bear a varied array of weapons, and persistence in the effort will bring success.

A handwritten signature in cursive script, reading "Jimmy Carter". The signature is written in dark ink and is positioned to the right of the date.

January 17, 1981

**THE ANNUAL REPORT
OF THE
COUNCIL OF ECONOMIC ADVISERS**

LETTER OF TRANSMITTAL

COUNCIL OF ECONOMIC ADVISERS,
Washington, D.C., January 16, 1981.

MR. PRESIDENT:

The Council of Economic Advisers herewith submits its 1981 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.

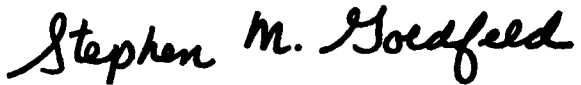
Cordially,

A handwritten signature in black ink that reads "Charles L. Schultze". The script is fluid and cursive, with a large initial "C".

Charles L. Schultze
CHAIRMAN

A handwritten signature in black ink that reads "George C. Eads". The script is cursive, with a large initial "G" and "E".

George C. Eads

A handwritten signature in black ink that reads "Stephen M. Goldfeld". The script is cursive, with a large initial "S".

Stephen M. Goldfeld

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CHAPTER 1

Inflation and Growth in the 1980s

IN THE 1980s THE UNITED STATES will confront a variety of stubborn problems that have developed during the past 15 years. Chief among these problems is one that is shared by most other industrial countries—the persistence of large wage and price increases, even in the face of high unemployment and slack production. This problem poses the single most important challenge to U.S. economic policy—reducing inflation while maintaining a reasonably prosperous and growing economy.

Many other problems are themselves closely related to inflation, either as cause or as consequence. Our Nation's productivity growth has virtually halted in recent years. The era of cheap energy has ended, the world has grown vulnerable to supply disruptions, and the course of domestic inflation and unemployment has become closely dependent on economic and political developments in the oil-rich but politically unstable Middle East. Meanwhile, the struggle to find a proper balance between a clean, healthy, and safe environment, on the one hand, and satisfactory economic growth with lower inflation, on the other, will continue. All of these developments, together with the growing interdependence of the world economy, have set in motion major changes in economic structure, occupational skill requirements, and industrial location that will continue to pose sizable adjustment problems to many industries, communities, and workers.

While the magnitude of these economic challenges is cause for serious concern, it does not warrant pessimism. During the 1970s the U.S. economy performed quite well in many important respects. Over that decade our country outperformed most other major countries in providing jobs for its people (Table 1). Employment grew almost 25 percent as the American economy created jobs not only for millions of youths entering the labor market for the first time but also for millions of women, who found job opportunities in growing numbers. This performance continued through the last years of the decade at an increased pace. While the growth in the number of employed persons was temporarily interrupted by the recession of 1980, the basic performance was virtually unparalleled.

TABLE 1.—Changes in employment in major industrial countries, 1970–80

[Percent change]

Country	To 1980 first quarter from	
	1970	1976
Germany.....	-3	3
France.....	4	2
United Kingdom.....	0	0
Japan.....	8	5
United States.....	24	11

Note.—Data are for civilian employment.

Sources: Department of Labor (Bureau of Labor Statistics) and Organization for Economic Cooperation and Development.

Some of the rapid job creation was associated with the low rate of productivity growth, but production also increased rapidly. As shown in Table 2, the growth of industrial production in the United States, both during the decade as a whole and in the last years of the decade, compared favorably with that of other large industrial countries.

TABLE 2.—Changes in industrial production in major industrial countries, 1970–80

[Percent change]

Country	To 1980 first quarter from	
	1970	1976
Germany.....	29	15
France.....	36	10
United Kingdom.....	15	9
Japan.....	56	29
United States.....	41	16

Sources: Board of Governors of the Federal Reserve System and Organization for Economic Cooperation and Development.

Whatever the problems of the American economy, they do not arise from an inability to generate large increases in jobs and production. But if the challenges raised by chronic high inflation, energy and environmental problems, ebbing productivity growth, and structural readjustment are not faced, the potential for further growth will not be realized.

In recent years the United States has successfully begun to tackle some of its most difficult problems. After years of inaction followed by several years of vigorous debate, and with some painful sacrifices, we have put into place the major elements of an energy program which is already paying dividends in the form of greater energy conservation and improved supply prospects. After decades in which the documented evidence about the greater productivity and efficiency to be gained from economic deregulation had been ignored, this Nation finally acted during the past 4 years to deregulate its airline, trucking, and railroad industries, and major elements of its financial industry. And during the 1980 recession the executive branch and the Congress showed their willingness to maintain the restraint and discipline

needed to control inflation by resisting strong pressures for a hasty and potentially inflationary fiscal stimulus.

As this *Report* will have several occasions to point out, there are no simple and clear-cut answers to the complex economic problems confronting our country. Many of them will yield only gradually to persistent efforts pursued on many fronts. In some cases where our knowledge is particularly uncertain, we may have to try several approaches before finding an effective solution. Nevertheless, the willingness to tackle difficult problems which this country has shown in the last several years provides a reason to temper concern about the seriousness of our economic problems with a belief that they can be met successfully.

The first two chapters of this *Report* examine the major economic challenges identified above and discuss appropriate policies to deal with them. In most instances the Administration has already made specific policy recommendations, and these are reflected here. But in some cases the chapters identify and evaluate additional policy options on which decisions would have been made had this Administration continued in office. The third chapter of this *Report* examines the Nation's general economic performance in 1980 and the outlook for 1981 and 1982, while the fourth chapter turns to issues pertaining to the international economy.

Chapter 1 addresses the broad problem of reducing inflation while achieving satisfactory growth in employment, output, and productivity. It considers selected aspects of both demand-side and supply-side measures. After discussing the history and causes of inflation, the chapter outlines the role and the limitations of demand management policies, examines the special problems of setting and carrying out anti-inflationary monetary policies in a world of high inflation and frequent economic disturbances, and evaluates the potential usefulness of a tax-based incomes policy as a method for reducing inflation. The remainder of the chapter is devoted to supply-side policies and pays particular attention to two subjects: *first*, the importance of increasing the share of the Nation's output devoted to capital formation and the macroeconomic policies necessary to achieve that goal; and *second*, the integration of supply-oriented tax reductions with overall policies of demand restraint.

Chapter 2 deals with major problems in particular sectors or markets. Specifically, it covers six major topics: energy, regulation, banking, agriculture, the labor market, and the generic problems of structural adjustment among industries confronting economic change. Broadly speaking, the policy measures discussed in Chapter 2 are aimed at increasing supply and productivity by improving the efficiency with which particular markets work and adjust to change. Like

the macroeconomic policies examined in Chapter 1, these too are a means of reducing inflation and speeding economic growth.

INFLATION

The Nation has for some time now experienced inflation that would have been unimaginable in earlier days. Although people's lives and the course of business may not, at first glance, appear radically different from what they were in 1960 before the recent inflation began, inflation has taken a very real toll. The uncertainty it has brought with it cannot be measured, but the consequent anxiety has torn at the fabric of our society. People feel less able to mark their progress and fear that the next round of inflation will leave them poorer. In a number of ways—such as introducing cost-of-living adjustments into wage contracts and indexing the benefits of social welfare programs—institutions have evolved to compensate for some of the uncertainty. But these institutions may sometimes only heighten the arbitrary redistribution of income brought on by inflation—redistribution that society often finds undesirable and unfair. In addition to these painful effects, moreover, inflation reduces the Nation's prospects for growth. The reduction may not appear dramatic, but it impairs the efficiency of the free-enterprise system and discourages capital investment, innovation, and risk-taking.

Rising prices, it should be remembered, are not in the aggregate synonymous with a reduction in real income. When prices rise, someone receives the additional revenues. And for the economy as a whole, rising prices have gone together with rising money incomes. But a wage or salary increase comes infrequently and in a large lump, while prices tend to increase all the time. Furthermore, a pay increase may be viewed as uncertain and as a reward for effort, but price increases seem entirely beyond a consumer's control. As a result, a recent wage increase may be forgotten when the grocery bill rises. Thus rising prices are often treated as something that directly lowers real incomes, even when in fact for the Nation as a whole they do not. Of course, the resulting anxiety is no less real.

But when the country pays sharply higher prices to foreign oil producers, that does indeed lower its real income. We are poorer because we receive less oil than we did previously for the same amount of money. That would be true whether or not general inflation followed increases in the price of oil. The induced inflation, in the form of generally higher wages, salaries, and prices, is not the cause of the real income decline—the Nation's higher oil bill is.

A similar phenomenon occurs when growth in productivity slows. Slower productivity growth leads to a slower rise in real incomes. A

decline in productivity growth may be accompanied by an unchanged pace of wage and salary increases, in which case inflation will rise. But a slackening of productivity growth may also result in lower wage increases and an unchanged inflation rate. In either case the same slowdown in the growth of real income would have occurred. It was not caused by inflation.

Although some of the simpler notions that associate inflation with real income loss are wrong, high and rising rates of inflation do indeed weaken the Nation's macroeconomic performance. Inflation can contribute to slower growth in productivity by discouraging investment in two ways. First, some evidence suggests that when inflation increases, not only do people's expectations of future inflation rise, but their expectations tend to become much more uncertain. In this climate, expectations depend less on fact and more on opinion, rumor, and subjective perceptions. Innovative investments and other higher-risk economic activities, the seedbeds of future productivity growth, seem even riskier and are less likely to be undertaken. Meanwhile, businesses and households devote increasing effort to shielding themselves from the effects of inflation, often by speculating in nonproductive assets. Second, as discussed later in this chapter, the interaction between inflation and the tax system can indirectly discourage business investment and also affect the types of assets chosen, thereby distorting investment decisions and resulting in a less productive capital stock.

In a market economy the structure of relative prices and costs, and the yardstick of business profits, provide signals to businesses about what to produce, what inputs to buy, and when to buy them. The system responds to changes in those signals—changes in the price of aluminum relative to copper, of glass relative to tin, and in wages relative to prices. But in a period of high inflation, with a consequent increase in uncertainty, it is much more difficult to distinguish signals from random events. It is hard to know to what extent particular wage and price increases simply represent general inflation or are conveying a “real” message. As a consequence, it is easier to make wrong decisions. Inefficiencies grow, and productivity falls.

The uncertainty created by inflation also obstructs the conduct of economic policy. To the extent that high and rising inflation unhinges expectations from reality, the connection between economic policies and their results is attenuated, and the difficulties of policy-making are increased. Inflation itself is then more difficult to control. There is a temptation for macroeconomic policy to make announcements and take measures to impress the markets, but the intangible gains so purchased tend to evaporate rapidly.

Uncertainty is in large part to blame for the damage done by inflation. In addition to causing serious worry among individuals planning their economic futures, uncertainty interferes with the efficient operation of markets and thereby lowers the productive potential of the economy. Although measures to cure inflation may themselves be painful, over the longer term a reduction in inflation will yield rewards in terms of increased productivity growth and real income.

UNDERSTANDING INFLATION

To understand our persistent inflation, it is necessary to look beyond the commonly cited price statistics. Such statistics as the consumer price index (CPI), the various producer price indexes, and the national income account deflators are specialized measures of inflation, each with its own idiosyncrasies. They may be sharply influenced by fluctuations in food and energy prices or in mortgage interest rates and therefore sometimes exaggerate and sometimes understate the fundamental trend of inflation. As an example, in July 1980 the consumer price index showed inflation at zero while the producer price index (PPI) for finished goods showed inflation at an annual rate of almost 20 percent. It is therefore useful to construct measures which better reveal the true course of inflation.

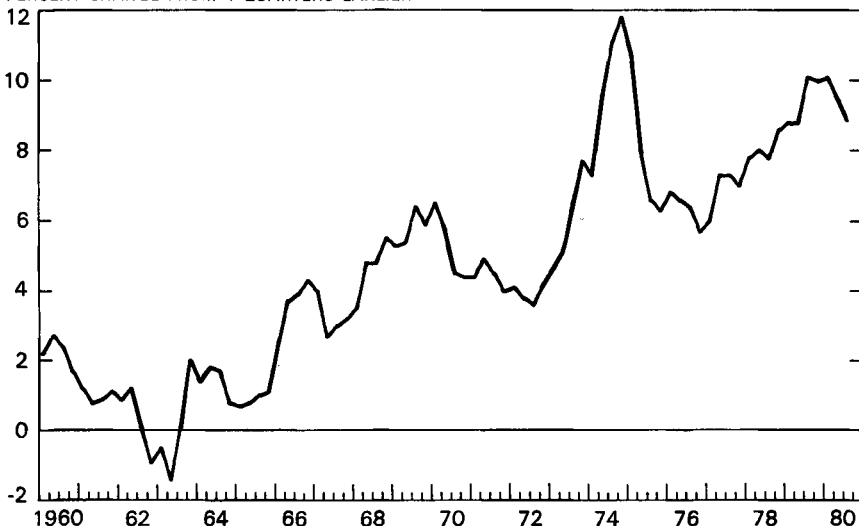
Charts 1 and 2 present two different statistical series which together approximate the basic trend, or "underlying rate," of inflation. The underlying rate is the rate of inflation which today's economy would tend to perpetuate if supply and demand remained roughly in balance and no special factors came into play, such as a large rise in oil or food prices.

Since payments to labor are estimated to account for almost two-thirds of total production costs, prices over the longer term tend to move in conjunction with changes in unit labor costs. Chart 1 shows a special measure of that change—the rate at which wages and fringe benefits are increasing *minus* the trend of growth in productivity. Chart 2 is a version of the price index for personal consumption expenditures calculated by the Department of Commerce. It excludes the volatile components of food and energy. Each series tells basically the same story.

Chart 1

Standard Unit Labor Costs

PERCENT CHANGE FROM 4 QUARTERS EARLIER^{1/}



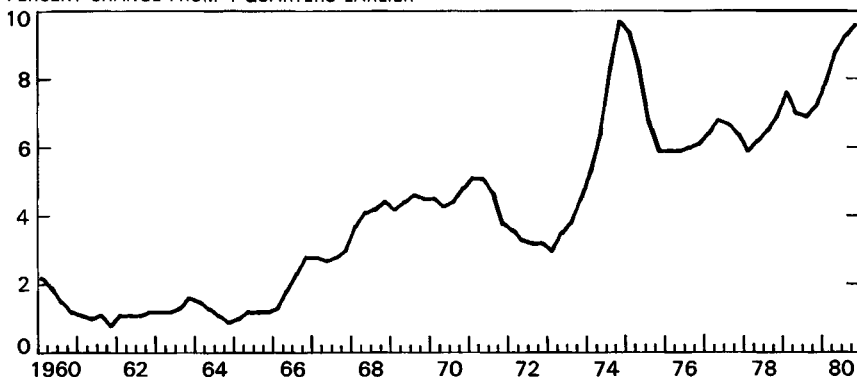
^{1/}PERCENT CHANGE IN RATIO OF COMPENSATION PER HOUR TO CYCLICALLY ADJUSTED PRODUCTIVITY, PRIVATE NONFARM BUSINESS, ALL PERSONS, UNREVISED.

SOURCES: DEPARTMENT OF LABOR AND COUNCIL OF ECONOMIC ADVISERS.

Chart 2

Price Index for Personal Consumption Expenditures Excluding Food and Energy

PERCENT CHANGE FROM 4 QUARTERS EARLIER^{1/}



^{1/}PERCENT CHANGE IN FIXED-WEIGHT PRICE INDEX. DATA ARE PRELIMINARY AND SUBJECT TO REVISION.

SOURCE: DEPARTMENT OF COMMERCE.

Over the past 15 years the underlying rate of inflation has risen from about 1 percent in the first half of the 1960s to 9 or 10 percent now. The increase has not been steady. Instead, there have been three major episodes. Each period began with a sharp increase in the underlying rate and ended with the rate falling only part way to its original level. Thus, each new inflationary period has started from a higher underlying level than its predecessor.

The first jump in the underlying inflation rate came during the Vietnam war, when a large rise in both military expenditures and outlays for Great Society programs was financed for several years without a tax increase. This led to a very large Federal budget deficit superimposed on an economy already operating at a high level. The result was a classic example of an excess of demand over supply. The underlying inflation rate rose from about 1 percent in the 1961-65 period to 4 or 5 percent by 1969. By the end of the decade the forces pushing up the inflation rate receded as taxes were belatedly raised and Vietnam war outlays declined. Although the economy entered a recession in 1970, the underlying rate of inflation continued at about 4 to 5 percent until wage and price controls were introduced in August 1971. For a short period the controls held down inflation in prices but did not reduce the growth in costs.

Another inflationary episode began in late 1973 as the result of two major developments. A poor crop year worldwide caused a sharp surge in food prices, and the Arab oil embargo at the end of 1973 was followed by a threefold increase in world oil prices. Although the full impact of the increase in world oil prices was muted in the United States by price controls on domestically produced oil, energy prices and the prices of energy-using products increased sharply. Aggregate demand grew sharply in 1972 and early in 1973. A worldwide boom led to a major inventory buildup and a widely based acceleration of raw materials prices in 1973-74. Finally, the distortions and inequities brought on by wage and price controls created irresistible pressures for easing the controls in 1973 and eliminating them in 1974. When this occurred, there was a burst of price and wage increases.

When this burst receded, the U.S. economy entered its worst recession in 40 years. While the underlying rate of inflation fell back from its late 1974 peak, it did not fall to its starting point. Aside from brief fluctuations, it settled down in the 6 to 7 percent range from 1976 through 1978.

The most recent inflationary episode was triggered when the Organization of Petroleum Exporting Countries (OPEC) raised oil prices in 1979 and early 1980. Relative to the size of the U.S. economy, the recent price increase was larger than the 1973-74 increase. By the

end of 1974 the world price of oil had tripled from about \$4 to about \$12 per barrel, thereby adding about \$18 billion to our bill for imported oil, or roughly 1.4 percent of gross national product (GNP). Since the price of domestically produced petroleum (which at that time accounted for about two-thirds of the petroleum used in the United States) was restrained by controls, the average U.S. price remained lower than prices throughout the rest of the world. Still, domestic oil prices almost doubled, so that the total increase in consumer costs was almost 3 percent of GNP.

During the most recent shock the price of imported oil rose from about \$15 per barrel at the end of 1978 to \$35 at the close of 1980. This added about \$50 billion to the cost of the oil we now import into the United States, or about 2 percent of GNP. Since domestic crude oil prices were in the process of being decontrolled during this period, the price of domestic oil increased by about \$15 per barrel, adding another \$60 billion to the oil costs paid by consumers.

The forces of inflation during this period were also strengthened to some extent by the behavior of aggregate demand. There was some acceleration of wages in 1978 as unemployment fell sharply. And for a time in late 1978 and early 1979, there appeared to be some excess demand in product markets.

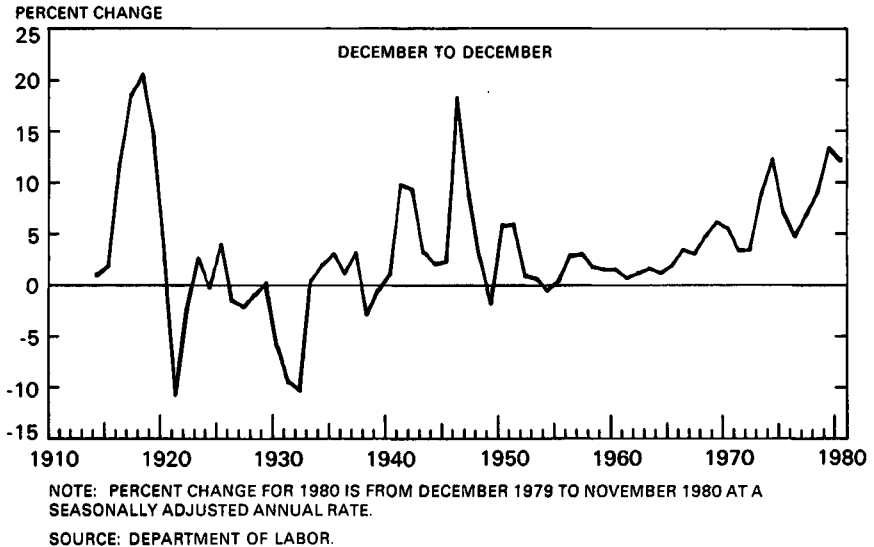
Spurred by these developments, inflation surged in 1979 and early 1980. As measured by the CPI—which was also heavily influenced by sharp increases in mortgage interest rates—inflation reached annual rates of 15 to 20 percent in the first quarter of 1980. By the spring of 1980 the forces that had given rise to this inflationary episode subsided, and the economy entered a brief recession. The measured inflation rate receded from its peak, but the underlying rate appears to have leveled off in the 9 to 10 percent range, up several notches from the 6 to 7 percent level at which the period had started.

THE SOURCES OF INFLATION

The chief problem with respect to inflation is not the sporadic developments that generate inflationary impulses. Instead, it is the ratchet-like nature of the inflationary process which makes it resistant to downward pressures. Chart 3, which shows year-to-year changes in the consumer price index since 1913, captures the essence of the inflation problem of the past two decades. The size of the inflationary bursts of recent years has not been out of line with those which occurred earlier in the century, but recent inflation has had an upward bias and has fluctuated around a rising trend line. An understanding of the “causes” of inflation must therefore encompass not only the various factors that give rise to particular inflationary episodes but also the reasons why inflation has developed a ratchet-like character.

Chart 3

Changes in Consumer Prices Since 1913



The Role of Aggregate Demand in Creating Inflation

The inflation rate which occurs in any given year is a composite of the individual wage and price decisions made by millions of businesses, unions, and workers. Those decisions are influenced by the strength of demand relative to supply. As demand (or spending)—on the part of consumers, business, and government—declines relative to supply, there is pressure on workers to moderate their wage demands lest employment fall, and on producers to restrain prices for fear of losing sales. The converse also holds true: the smaller the number of unemployed people and the lower the amount of unused industrial capacity, the greater the upward pressure on wages and prices. Some evidence also suggests that a rapid rise in demand can generate upward pressure on both wages and prices, even if the level of demand is not excessive. In general, if demand is in rough balance with supply, the underlying rate of inflation for the economy as a whole will remain basically unchanged, even though prices and wages in individual sectors may fluctuate in response to conditions in particular markets. If excess demand exists, or if the rate of increase in demand is very large, the underlying rate of inflation will tend to rise. If aggregate demand falls below supply, some downward pressure will be exerted on inflation.

Expectations about the future state of aggregate demand are also an important determinant of inflation. Wage decisions and many

price decisions cannot easily be reversed. Wages are often set for at least a year, and under most major union contracts they are set for 3 years. There are also many advantages to both buyers and sellers in avoiding frequent product price changes. As a consequence, decision-makers have to think not only about market conditions at present but also about what they are likely to be in the future. Thus, both current and *expected* aggregate demand influence the rate of inflation. Moreover, a firm's decisions today about what wages to offer or what prices to set for any future period will be conditioned by its expectations about the wages its competitors will pay and the prices its competitors will charge, and by the incomes that will be earned by its customers. In short, today's inflation rate is strongly influenced by what people expect it to be tomorrow.

It was excess aggregate demand during the Vietnam war that drove up the underlying rate of inflation from 1 percent to 4 or 5 percent by the end of the 1960s. Although increases in oil and food prices were the principal causes of the next two inflationary surges, pressures from aggregate demand again played an identifiable role. The most troublesome feature of the inflation of the past 15 years, however, has been the fact that after each of the three inflationary episodes the underlying rate of inflation did not fall back to its earlier level. To what extent was this outcome a demand-related phenomenon?

TABLE 3.—Selected indicators of declining demand pressures

(Percent, except as noted)

Item	1969 peak vs 1970 recession		1973 peak vs 1975 recession		1980 peak vs 1980 recession	
	1968 I to 1969 IV	1970 I to 1971 IV	1973 I to 1974 II	1974 III to 1976 IV	1979 I to 1980 I	1980 II to 1980 IV ¹
Average level:						
Manufacturing weekly overtime (hours)	3.6	2.9	3.7	2.9	3.3	2.7
Unemployment rate: Total	3.5	5.5	4.9	7.7	5.9	7.5
Males 20 years and over	2.1	3.9	3.3	5.9	4.2	6.4
Vendors reporting slower delivery	59	49	86	43	60	* 38
Manufacturing capacity utilization:						
Primary processing industries	88.1	82.6	91.9	79.3	87.5	* 76.1
Advanced processing industries	85.9	76.9	84.2	76.3	83.9	* 78.3
Change during period: ²						
Producer prices for crude materials excluding food and fuel ³	4.3	1.6	37.0	2.7	26.1	11.8
Unemployment rate (percentage points)	-.3	2.4	-2	2.6	.3	1.3

¹ Preliminary.

² Fourth quarter 1980 not available; November used as fourth quarter average.

³ Change from quarter preceding start of period shown.

⁴ Annual rates. Data prior to 1973 from series seasonally adjusted by Council of Economic Advisers.

Note.—Based on seasonally adjusted data, except vendor performance.

Sources: Department of Labor (Bureau of Labor Statistics), Board of Governors of the Federal Reserve System, Purchasing Management Association of Chicago, and Council of Economic Advisers.

At the end of each inflationary episode the economy entered a recession—in 1970–71, in 1974–75, and in 1980. Unemployment rose steeply, and substantial amounts of idle capacity appeared (Table 3). The failure of inflation to fall back to earlier levels is therefore not attributable to excess demand. On the other hand, there clearly would have been some level of demand low enough to have caused business and labor to moderate the increase in wages and prices substantially so as to return to the earlier level of inflation. But for reasons discussed later, the rate of wage and price increase has become relatively insensitive to a moderate degree of economic slack. As a consequence, the cost of the necessary restraint—in terms of additional unemployment, idle capacity, and lost income, production, and investment—would have been extremely high.

Federal Budget Deficits as a Cause of Inflation

The Federal budget balance at any given time is an important factor in determining the level of current aggregate demand in the economy. If the Federal budget is in deficit, total spending—private and public—will be higher than it would be if taxes had been raised or spending had been cut to produce a balanced Federal budget. Any tax or spending measure that turned a budget deficit into a balanced budget would tend to reduce demand relative to supply and put downward pressure on the inflation rate. Furthermore, since businesses make wage and price decisions at least partly in the light of what they expect market conditions to be, announcements of future budget policies have a strong effect on current economic conditions and on the rate of inflation. Thus budget deficits can contribute to inflation both by being a part of current aggregate demand and by contributing to expectations about future aggregate demand.

The existence of important relationships between Federal budget policy and aggregate demand that in turn affect inflation does not, however, support the simple view that budget deficits cause inflation and that inflation could be eliminated if Federal deficits were eliminated. Federal deficits are not the sole—or even the primary—determinant of aggregate demand. The Federal deficit is likely to be largest when private demand is weak, incomes are low, and inflationary pressures from the private demand side are absent. That is the situation in a recession. In the second column in Table 4, which shows the Federal budget deficit as a percentage of GNP, the effects of recession in 1958, 1970–71, 1974–75, and 1980 show up as large increases in the deficit in the fiscal years during and immediately after the recession. Conversely, a truly inflationary budget may exhibit a small deficit, or even a surplus, as a result of an inflation-caused increase in Federal revenues. In 1969, as inflation was surging, the

Federal budget achieved a surplus. In 1974, when another inflationary surge occurred, the deficit was quite small.

TABLE 4.—*Governmental surplus or deficit and gross national product, 1958–80*

[Amounts in billions of dollars]

Year	Fiscal years—unified budget		Calendar years—government sector, national income and product accounts			
	Federal surplus or deficit (—) ¹		Federal surplus or deficit (—)		Federal and State and local surplus or deficit (—)	
	Amount	As percent of GNP	Amount	As percent of GNP	Amount	As percent of GNP
1958.....	—2.9	—0.7	—10.3	—2.3	—12.6	—2.8
1959.....	—12.9	—2.7	—1.1	—2	—1.6	—3
1960.....	.3	.1	3.0	.6	3.1	.6
1961.....	—3.4	—1	—3.9	—1	—4.3	—1
1962.....	—7.1	—1.3	—4.2	—1	—3.8	—1
1963.....	—4.8	—1	.3	.1	.7	.1
1964.....	—5.9	—1.0	—3.3	—1	—2.3	—1
1965.....	—1.6	—1	.5	.1	.5	.1
1966.....	—3.8	—1	—1.8	—1	—1.3	—1
1967.....	—8.7	—1.1	—13.2	—1.7	—14.2	—1.8
1968 ²	—25.2	—3.0	—6.0	—1	—6.0	—1
1969 ³	3.2	.4	8.4	.9	9.9	1.0
1970.....	—2.8	—1	—12.4	—1.2	—10.6	—1.1
1971.....	—23.0	—2.2	—22.0	—2.0	—19.4	—1.8
1972.....	—23.4	—2.1	—16.8	—1.4	—3.3	—1
1973.....	—14.9	—1.2	—5.6	—1	7.8	.6
1974.....	—6.1	—1	—11.5	—1	—4.7	—1
1975.....	—53.2	—3.6	—69.3	—4.5	—63.8	—4.1
1976.....	—73.7	—4.5	—53.1	—3.1	—36.5	—2.1
1977.....	—53.6	—2.9	—46.4	—2.4	—18.3	—1.0
1978.....	—59.2	—2.8	—29.2	—1.4	—2	.0
1979.....	—40.2	—1.7	—14.8	—1	—11.9	.5
1980 ³	—73.8	—2.9	—62.3	—2.4	—34.8	—1.3

¹ Includes off-budget outlays.

² A 10-percent income tax surcharge was introduced in July 1968—thus entering calendar year 1968 but fiscal year 1969.

³ Preliminary.

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

If government budget deficits are the cause of inflation, it should make no difference whether the deficit occurs at the Federal, State, or local level. For example, the Federal revenue-sharing program, which grants Federal tax revenues to State and local governments, has the effect of reducing State and local deficits (or increasing their surpluses) by increasing the Federal deficit. If the program were eliminated, but both levels of government continued to tax the same amount and maintain the same level of services, the Federal deficit would be reduced—but the total deficit, and its inflationary consequences, would be unchanged. In fact, principally because the State and local governments accumulate funds to pay employee pension costs, their budgets usually show a surplus. As the figures in the final column in Table 4 show, the combined budgets of Federal, State, and local governments have either showed a surplus or a very small deficit during the past two decades, except during recessions and for 2 years when Federal spending on the Vietnam war was at its peak.

The notion that budget deficits are the chief cause of inflation also founders on a comparison of budget deficits and inflation among different countries. Japan and Germany in recent years have had much better success in combating inflation than the United States. Yet their budget deficits, especially those of Japan, have been much higher relative to the size of their economies than has been the case in the United States (Table 5).

TABLE 5.—*International comparison of deficits and inflation, 1977-79*

Country and item	1977-79 annual average
United States:	
Public sector surplus or deficit (—) as percent of GNP ¹	-0.1
Inflation rate ²	8.4
Germany:	
Public sector surplus or deficit (—) as percent of GNP ¹	-2.7
Inflation rate ²	3.5
Japan:	
Public sector surplus or deficit (—) as percent of GNP ¹	-4.8
Inflation rate ²	5.1

¹ Standardized national accounts basis.

² Percent change in consumer price index.

Sources: Department of Labor (Bureau of Labor Statistics) and Organization for Economic Cooperation and Development.

Stating that deficits are not the sole cause of inflation does not, of course, imply the opposite proposition—that the size of the budget deficit is unimportant to the control of inflation. Subsequent sections of this chapter emphasize the importance of fiscal restraint in a long-term program to reduce inflation.

Supply Shocks as a Source of Inflation

Sharply higher prices in one sector of the economy can lead to surges in inflation even when excess aggregate demand is absent. These sudden and massive changes generally spring from conditions that cannot be controlled. The most important of these have been increases in food prices resulting from shortages and increases in oil prices mandated by OPEC. These events are no different from such common supply disruptions as strikes, accidents, and natural disasters, but they are much larger, and it is their size which makes their effects exceptional.

Price shocks have both direct and indirect effects. Consumers feel the price increases directly, and these direct effects may be magnified by the brevity of the time in which they occur, resulting in extraordinary jumps in reported inflation rates. In addition, price increases in agricultural or energy raw materials translate indirectly into price increases in the final products that utilize those materials, although the degree and timing of the pass-through depend on market conditions. This secondary impact is quite important in the case of petroleum, half of which is used by businesses in production and transportation.

As an abrupt increase in the price of an important commodity translates into an increase in the cost of living, pressure builds for wage gains to match the new inflation. Some gains take place automatically where wages are linked to prices through cost-of-living clauses in union contracts. Additional acceleration occurs as new contracts are negotiated. As businesses observe the rising wage-price spiral, they are likely to expect a higher future level of inflation. They are then somewhat more likely to grant larger wage increases, both in the belief that rising inflation will make it possible to pass through increases in higher prices and in order to avoid losing workers. Through this process, a sharp increase in food or oil prices can lead to a rise in the underlying inflation rate.

The magnitude of the inflationary process set in motion by an oil-price increase or some other supply shock depends on the state of the economy. The more prosperous the economy and the lower the unemployment level, the more likely it is that the initial increase in prices will lead to higher wage increases and a higher underlying inflation rate.

In addition to their inflationary consequences, supply shocks also create recessionary forces. The very large increases in oil prices in 1974 and 1979 not only spurred inflation but simultaneously depressed aggregate demand. They were therefore largely responsible for the recessions of 1974-75 and 1980. After paying sharply higher prices for petroleum products, consumers had less to spend on other goods and services. But those who received the revenues from higher oil prices—foreign and domestic oil producers—increased their demands for U.S. exports and investment goods only gradually. On balance, therefore, aggregate demand and spending fell, leading to lower output and reduced employment.

Such a simultaneous increase in inflation and unemployment brought on by supply shocks creates a dilemma for economic policy. If monetary and fiscal policies produce additional aggregate demand to “compensate” for the recessionary forces set in motion by a supply shock, there is likely to be a large induced rise in inflation. If, on the other hand, no effort is made to compensate, aggregate demand will fall. But given the relative insensitivity of wage and price decisions to moderate slack in the economy, some increase in the underlying inflation rate is nonetheless likely. Only sharply restrictive monetary and fiscal policies, which strengthen the forces leading to recession, can prevent an increase in the underlying inflation rate. While recessionary forces came into play in 1974 and 1980, the slackening of aggregate demand was not sufficient to avoid another upward ratcheting of the inflation rate.

The Role of Declining Productivity Growth

Over the past decade—and perhaps since the mid-1960s—the rate of productivity growth in the United States has slackened. (A later section of this chapter examines this trend in more detail.) This slackening has been an unwelcome development, since productivity growth can offset the effects of rising wages on business costs and prices. When productivity growth slows but increases in wages continue, the rate of increase in costs and prices rises. While short-term variations in productivity growth may not be recognized in setting prices, a longer-lasting slowdown in productivity will be reflected in higher prices. Once prices begin to rise in response to this pressure, another round of wage demands is stimulated as workers try to offset the increased cost of living. This raises the underlying inflation rate yet again.

The Downward Insensitivity of Wages and Prices

If wages and prices were sensitive to a moderate degree of slack in the economy, careful control of aggregate demand through monetary and fiscal policy could bring rising inflation to a halt quickly and at a modest cost. True, mistakes in policy might occur from time to time, and supply shocks over which the government has no control would still take place. But inflation could be brought down relatively quickly and easily if it did not have—as it has now—a large degree of inertia.

Before World War II, and perhaps in the immediate postwar years, wages and prices were more sensitive in a downward direction. (See Chart 3, for example.) Several careful economic studies show that in that earlier period a moderate or short-lived slackening of aggregate demand tended to reduce the rate of inflation significantly. Those who have compared that earlier era with more recent times differ in their views as to precisely why things have changed, but the basic causes are clear.

During the past several decades the vast majority of firms, labor unions, and workers have come to expect that expansionary government policies will be applied sooner or later to reverse recessionary tendencies in the economy. Since current wage and price decisions are strongly influenced by what workers and firms think the future will hold, the expectation of stimulus removes much of the motivation for moderating wage and price behavior. Businesses and unions have also developed a growing tendency to turn to government for relief, often with some success, when their high prices and wages lead them into competitive difficulties. All of these factors have weakened the incentive for businesses and workers to restrain their wage and price demands, even in the face of softening markets. These actions do not depend on specific knowledge about future government

policies but are based on the widespread view that "the government won't allow things to get too bad."

Prior to World War II, however, popular expectations were different. The Federal Government had historically played little role in smoothing the economic cycles, and substantial depressions as well as mild recessions occurred periodically. Up until the 1930s there was no unemployment insurance, social security, or deposit insurance to ameliorate the consequences of economic downturns. When markets started to weaken, there was no reason to believe that any support—in the aggregate or for individuals—would be forthcoming from the government. As a consequence, wages and prices quickly subsided as businesses and workers scrambled to survive. The cycle, furthermore, was self-reinforcing. Because inflation often led to a slump, followed by a speedy reduction in inflation, businessmen and others came to expect that inflation would not last long; this expectation itself moderated their behavior with respect to wages and prices.

After World War II, however, the United States and other industrial countries decided that the costs of this kind of painful adjustment were too high. Thus, countercyclical policy was founded. The success of that policy, and the existence of various programs of income support to protect individuals in case of unemployment, have changed the character of expectations. In the new environment the appearance of slack markets, idle capacity, and higher unemployment leads to far less moderation in wage and price increases. Downward flexibility has not disappeared, but it has diminished.

Current wage and price behavior has deep-seated structural origins and is not based solely on current expectations about governmental behavior. Since most large wage contracts run for 2 or 3 years, the rate of wage increase in any particular year will have been determined in part by negotiations in earlier years under different conditions. In addition, the expiration dates of multiyear wage contracts for different industries are staggered, and the wage increases negotiated in any industry will be influenced to some extent by the size of earlier increases won by unions in other industries. Moreover, the prospect of further inflation over the life of these contracts has led to the inclusion of cost-of-living clauses, which provide wage increases even when markets are slack. Although union contracts cover less than one-quarter of the civilian labor force, the partial insulation of these contracts from current economic events has some effect on the wages that nonunion firms must pay.

Quite apart from the existence of written contracts, there are mutual advantages to both firms and workers from wage-setting practices that are relatively insensitive to economic slack. In complicated modern societies the costs of acquiring information about alternative

job opportunities are very high for workers, and the costs of training a skilled work force are very large for businesses. Both workers and firms see benefits in establishing long-term relationships. One way for a firm to attract and hold a skilled work force is an implicit agreement not to engage in extensive wage-cutting during periods of weak markets. As a consequence, many firms are unwilling to take a chance of losing out in the labor market by being among the first to reduce wage increases.

Other institutions besides those of wage-contracting contribute to the downward insensitivities of prices and wages. In the case of prices, the downward pressure that would normally be exerted by competitive forces in slack markets is significantly muted in large oligopolistic industries by market strategy considerations and various forms of administered prices. Finally, government intervention in individual markets through regulation, which may fix wages, the price or quality of the product, or the conditions under which production takes place, adds further rigidity.

Some of the economic institutions and practices that contribute to wage and price rigidity themselves evolved in response to expectations that government economic policy would continue to be supportive. Although the persistent application of demand restraint is likely to reduce them, they should not be expected to disappear easily or quickly.

Downward wage and price rigidity makes the costs of reducing inflation through monetary and fiscal restraint quite large. It is difficult to estimate the costs with precision, but representative econometric studies suggest that reducing inflation by 1 percentage point would require a sacrifice of \$100 billion in lost output (in 1980 prices) and a one-half percentage point rise in the unemployment rate over a period of about 3 years. Most of the costs would be incurred in the first half of the period. These statistical estimates, however, are based on historical relationships. There has never been a period of sustained economic restraint in recent times from which direct evidence of the costs could be drawn. The possibility that they would grow significantly smaller if restraint persisted is discussed later in this chapter.

In sum, it is the costs imposed on society when demand restraint clashes with the downward insensitivity of wages and prices that makes it so difficult to reduce inflation by applying monetary and fiscal restraint. Viewed in this perspective, the central problem of economic policy is not how to reduce inflation. If that were the only objective, a sufficiently draconian level of demand restraint could be found to do the job. The real issue is twofold: How large are the costs society is willing to bear to realize the benefits of lower infla-

tion, and can policies be designed to lower those costs so that inflation can be reduced faster with smaller losses in output and employment?

MANAGING AGGREGATE DEMAND

Monetary and fiscal policy must be designed to prevent aggregate spending that is so high or growing so fast relative to the Nation's productive capacity that it encourages a speedup in the rate at which wages and prices are rising—i.e., an increase in inflation. To play a role in lowering the underlying inflation rate, growth in aggregate demand must be further restrained to a point where firms and workers reduce the rate at which they raise wages and prices.

This section starts by specifying a policy of demand management that aims at a gradual reduction of inflation in a world where the inflation rate is highly resistant to downward pressures. Particular attention is paid to the problem of establishing the credibility of anti-inflation policies so as to influence popular expectations in a favorable way. The section then considers some of the special problems of managing monetary policy in a period of high inflation and frequent economic disturbances.

BROAD PRINCIPLES

Three broad principles, discussed at length in last year's *Report*, can guide monetary and fiscal policy as it seeks to reduce inflation while providing for reasonable growth:

First, monetary and fiscal policy should aim for a long-term reduction in the growth of nominal GNP (aggregate spending). That reduction should not be abrupt, or it will produce large decreases in employment and production while reducing inflation only modestly. But the restraint must be maintained, since wages and prices tend to resist the downward pressure.

Second, the pace of nominal GNP growth will undoubtedly need to fluctuate along a declining trend. Realistically, even if there is a decrease in the inflation rate in 1981, for example, some rise in nominal GNP growth will be required to accommodate a modest recovery from the 1980 recession. A policy of fiscal and monetary restraint to produce a long-term reduction in the growth rate of nominal GNP may thus need to be adjusted from time to time to take account of short-term changes in economic conditions. But several cautions are required. Unless clearly warranted and carefully explained, shorter-term adjustments to economic policy can threaten the credibility of longer-term restraint. Moreover, because an increase in inflation once underway is so very hard to eliminate, an inflationary mistake takes much longer to reverse than its opposite. The risks that policy-

makers face are not symmetrical and, as a consequence, uncertainty must be resolved in favor of caution.

Third, no matter how well designed, monetary and fiscal policies cannot prevent large outside shocks to the economy from imposing some damage on employment, price stability, or growth. A practical approach would be to "accommodate" the direct inflationary effect of external price shocks but restrain aggregate demand sufficiently to minimize the indirect inflationary effects that would result if individuals attempted to raise wages and other incomes to "catch up" with higher prices. Without huge costs in terms of lost production, however, it would probably be impossible to restrain demand sufficiently to eliminate all induced increases in inflation. In these circumstances a voluntary incomes policy may be able to make a significant contribution. This seems to have occurred in 1979, when the response of wages to the large rise in inflation was substantially muted.

Because the rate of increase in wages and prices tends to resist downward pressures, a policy of continued restraint on the growth of aggregate demand sufficient to induce a decline in inflation will mean sustained slack in the economy and will result in a period of relatively slow growth in production and employment. This outlook could be improved if it were possible to change the behavior of wages and prices so that they responded to demand restraint more rapidly and by larger amounts.

THE ROLE OF EXPECTATIONS AND THE CREDIBILITY OF DEMAND RESTRAINT

Earlier in this chapter the downward resistance of wage and price inflation was attributed in part to a widespread expectation that expansionary government policies will rather quickly be applied to reverse recessionary tendencies. If firms and workers became convinced that the government meant business, that the markets for their products would not be supported by easier money or fiscal stimulus, and that they could continue raising wages and prices only at their own peril, their decisions about wage demands and pricing policies would undoubtedly be affected. The downward "stickiness" of wage and price inflation would be eased.

Does the government need to put the economy through one or more prolonged periods of economic slack in order to demonstrate the firmness of its anti-inflation commitment? Or can it avoid that necessity by somehow convincing the Nation in advance of its determination? Some observers have suggested, for example, that the government could show its resolve by announcing a target path for nominal GNP or for money supply growth (or both) and by committing itself to pursuing those targets whatever the consequences for unemployment and production. The target path would permit pro-

duction and employment to grow only if they were accompanied by significant reductions in wage and price inflation. But simply announcing a set of targets does not guarantee that they will steadfastly be pursued in the face of mounting losses in employment, profits, and sales. Indeed, the tougher the targets and the greater the demand restraint they seem to require, the less likely they are to be credible, for their success will rely on an uncharacteristic willingness on the part of the Administration, the Congress, and the public to accept large reductions in employment and production rather than abandon the targets.

The mere announcement of government intentions is, therefore, unlikely to produce a significant change in wage and price behavior. The actual experience of persistent demand restraint, followed by a substantial number of individual firms and unions pricing themselves out of the market, would almost certainly be necessary before the credibility of the policy was established. In addition, the government would have to refuse pleas for trade restrictions, subsidies, or other relief for those who failed to moderate their wage and price increases.

Even if firms and workers became convinced that the government was determined to persist in its demand restraint regardless of the consequences, to what extent would they respond with a greater willingness to cut wage and price increases, especially if the demand restraint were moderate instead of very severe? The answer would depend in part on whether they expected inflation or production to fall first. If individual firms believed that demand restraint was synonymous with lower inflation, they would undoubtedly restrain their own wage and price increases, since they would be reluctant to get far out of line with the wages and prices of other firms and industries. But given the downward insensitivity of wages and prices experienced over the past several decades, demand restraint might at the present time lead instead to expectations of lower output. It is not at all clear, therefore, how sharply wages and prices would respond to a moderate decline in demand even if it was expected to last for a long while.

Equally important, strong structural components of wage and price stickiness discussed earlier in this chapter would remain. These structural factors are, in the near term, independent of expectations. As a consequence, other measures would also have to be pursued as a means of speeding a reduction in inflation and raising the growth of production and employment in the face of continued demand restraint.

The foregoing discussion suggests that one of the most critical questions in designing anti-inflation policies is determining the

extent to which the downward stickiness of wage and price inflation has been due to popular expectations rather than to structural factors. While there is no clear-cut answer to this question at the moment, it is surely true that expectations about the persistence of government policies of demand restraint affect the responsiveness of wages and prices. To the extent that the credibility of government policies can be strengthened, the reduction in inflation will come more quickly and the social costs will be reduced. The fact of persistence in an anti-inflation policy—as happened in 1980, when no fiscal stimulus was offered and a restrictive monetary policy was maintained in the face of a weakening economy—should gradually help to modify business and worker behavior. But it would be imprudent to expect entrenched expectations to be changed quickly.

MONETARY POLICY

The Federal Reserve bears a substantial share of the responsibility for carrying out aggregate demand management. As discussed above, the monetary authorities must first confront the question of the appropriate degree of economic restraint. The problem is to achieve the proper balance in order to reduce inflationary pressures at a minimum cost in lost jobs and production. Formulating and implementing policies to achieve this balance in a period characterized by wide fluctuations in economic and financial conditions confronts the monetary authorities with a number of serious additional challenges. While these problems are generally technical in nature, the manner in which they are resolved can have a significant impact on the degree of monetary restraint.

Monetary policy can exert no direct control over aggregate demand. It must exert its influence indirectly, that is, by affecting actual and expected conditions in the money and credit markets. The linkages between what it can control (the cost and availability of bank reserves), its intermediate indicators of conditions in the money and credit markets (the monetary aggregates and interest rates), and its ultimate goals (the impact on real growth and prices) are imperfect and often are not directly observable, even after the fact. In evaluating these linkages, the monetary authorities must rely on predicted relationships based on economic theory and historical experience, and there is plenty of room for slippage. These technical problems create considerable uncertainty for the makers of monetary policy.

A related issue is that the effectiveness of the monetary authorities in bringing down inflation depends on how firms and individuals perceive monetary policy. Private sector expectations of the likely success of monetary policy influence its actual success. Consequently, it is important that the monetary authorities demonstrate that they have chosen a strategy that will achieve their anti-inflation objectives.

Moreover, their actions must indicate that they have the technical capability to meet these objectives while responding forcefully to new situations and to any divergence between desired and actual developments.

In recent years the debate on these issues has focused on the Federal Reserve's target growth ranges for monetary aggregates and on the process of setting and implementing these targets. The targets are defined in terms of the narrow measures of the money stock (formerly M-1 and now M-1A and M-1B, which include currency and various types of checkable deposits), the broader measures of the money stock (M2 and M3, which include currency and checkable deposits as well as time and savings deposits and other deposit-like instruments), and bank credit. The Federal Reserve has used monetary growth targets internally since the early 1970s, and since 1975 it has announced them publicly in testimony before the Congress.

In October 1979 the Federal Reserve modified its procedures for implementing monetary policy in order to give greater emphasis to keeping the growth of the aggregates within the target ranges, even if that meant more variation in interest rates. By this change, the Federal Reserve was widely perceived as having established the realization of its targets as a benchmark for measuring the performance of monetary policy.

While the notion of monetary targeting may appear quite straightforward, in practice there are a number of questions that must be resolved in carrying out a targeting strategy. Among these, three in particular deserve attention here:

- How should the Federal Reserve set its monetary growth targets, both in terms of choosing particular measures of money and choosing numerical targets?
- What is the appropriate monetary policy response when the relationships among economic variables, on which the initial targets were set, appear to shift?
- How rigidly should the Federal Reserve adhere to its longer-run growth ranges over the short run?

Choosing the Appropriate Measure of Money

Debate over selection of the appropriate measure by which to guide monetary policy must take into account the tradeoff between the ability of the Federal Reserve to control any monetary aggregate and the influence of that aggregate on overall demand. For example, the monetary base, composed of currency held by the public plus bank reserves, is probably the easiest for the Federal Reserve to control. But studies have shown that the relationship between the monetary base and aggregate demand is not very close. The narrow meas-

ures of the money stock (M-1A and M-1B) are somewhat harder to control but in general have been more closely tied to aggregate demand. Some economists argue that a broader measure of the money stock, such as M-2, has the most stable relationship with aggregate demand, but the very breadth of this measure—including as it does a mixture of the liabilities of several types of financial institutions—makes it rather difficult to control.

A related issue is how the various measures of the money stock should be defined. The rapid evolution of the financial markets in recent years (see the discussion in Chapter 2) has blurred the historical distinctions between the types of financial instruments and rendered somewhat ambiguous what should be treated as “money.” These developments have been partly responsible for the recent instabilities in the relationship among the narrow monetary measures, economic activity, and interest rates—instabilities commonly referred to as shifts in money demand.

In light of these considerations, the Federal Reserve has chosen to consider a family of monetary aggregates to impart a needed degree of flexibility. Thus, while a narrow aggregate like M-1B has been accorded primary emphasis, there may be periods when it provides an uncertain guide for monetary policy. At such times the Federal Reserve may put more emphasis on the broader measures of the money stock, such as M-2.

Setting Numerical Targets

Once the Federal Reserve determines which monetary aggregates to target, numerical target ranges must be set to achieve the appropriate degree of aggregate demand restraint. The targeting procedure could, for example, begin by determining the appropriate path for nominal GNP that would be consistent with a gradual decline in inflation. Abstracting from cyclical variations in real economic expansion, a steady reduction of inflation would imply a gradual decline in nominal GNP growth.

Given this objective, the monetary authorities would need to estimate growth rates for the monetary aggregates that would satisfy the needs of an economy moving along the presumed declining path of nominal GNP. These would then become the basis for choosing the target growth ranges. Over the past two decades a given growth rate of the narrow measures of money has, on average, financed a 2 to 3 percentage point faster rate of expansion of nominal GNP, although the pattern has varied from year to year. This relationship suggests that the goal of a gradual decline in the growth of nominal GNP would be consistent with a gradual lowering in the target ranges, although not necessarily every year.

Starting with its 1975 targets as a base, the Federal Reserve has, in fact, adhered to a policy of lowering the target ranges by a small amount in each year (Table 6). What has been the result? In some years (1977, 1978, and 1980) the targets were exceeded. In the others there were apparent shifts in money demand such that actual money growth was much lower than would be predicted on the basis of historical relationships.

Predicted M-1 growth for the last 5 years is shown in the third column of Table 6, and the difference between predicted and actual money growth is in the last column. As the figures indicate, those years when actual money growth was in the target ranges (1976 and 1979) were periods in which there were the largest downward shifts in money demand. In effect, actual money growth during these periods supported a greater-than-expected growth of nominal GNP. In the remaining years money growth was nearer the rate expected from historical money-demand relationships, but that growth was above the target range. These two factors—money demand shifts and missing the targets—help to explain how such low values for the monetary growth targets could have persisted in a period of high nominal GNP growth. Over the entire period more nominal growth was accommodated than is implied by the monetary targets and the historical relationships.

TABLE 6.—*Monetary growth rates, 1975–80*

Period	Money growth (percent change from fourth quarter a year earlier)			Predicted minus actual money growth (percentage points)
	Target	Actual	Predicted ¹	
Fourth quarter:				
1976 (M-1)	4½–7½	5.8	10.0	4.2
1977 (M-1)	4½–6½	27.9	9.9	2.0
1978 (M-1)	4–6½	27.2	8.8	1.6
1979 (M-1)	3–6	5.5	7.8	2.4
1980 (M-1B)	24–6½	247.1	7.3	4.1

¹ Predicted money growth based on Council of Economic Advisers money demand equation using actual historical data for GNP, interest rates, and prices.

² Above target range.

³ The target range for 1980 based on the newly defined aggregate M-1B was chosen to be consistent with a slowing in monetary growth as compared to 1979.

⁴ Preliminary.

Sources: Board of Governors of the Federal Reserve System (target ranges and actual money growth) and Council of Economic Advisers (predicted money growth).

Although the continuing application of monetary restraint could call for reductions of the monetary growth ranges over time, there are a number of problems which have to be faced. In particular, the question arises about the extent to which adjustments in monetary targets ought to be made when structural changes occur in the economy.

In the last decade there have been several abrupt shifts in the relationships among important economic factors—disruptions related to

jumps in oil and food prices as well as to shifts in money demand. The problem for the Federal Reserve is how, if at all, to adjust monetary growth targets in response to these changes. This requires an evaluation of the likely direct impact of monetary and credit conditions on economic activity, as well as an assessment of how altering the monetary targets would affect wages and prices.

Response to Supply-Side Shocks

When the economy experiences a supply shock such as the recent surge in oil prices, the initial results are likely to be a reduction in aggregate demand and a rise in unemployment and inflation. As discussed earlier, the Federal Reserve can respond in several ways. At one extreme, the response would aim at accommodating the shock completely, thus restoring real aggregate demand to its level before the shock and avoiding any rise in unemployment. At the other extreme, the response would attempt to offset fully both the direct and indirect inflationary effects. The intermediate position suggested earlier would be to accommodate the direct effects of the price shock but seek to minimize indirect effects.

If the latter strategy were adopted, the monetary targets necessary to pursue it would be identical to those prevailing before the shock only by pure chance. Some adjustment would almost invariably be required, but whether the appropriate response entailed greater or less monetary growth than the original target ranges would depend on conditions prevailing in the economy at the time as well as on the complex dynamic responses of wages and prices after the shock. Moreover, the monetary authorities must remember that their credibility may be damaged if this strategy were to entail an upward adjustment in targets. Such a consideration may lead to a less accommodative position than analysis based strictly on aggregate demand conditions would warrant.

Changes in Money Demand

Shifts in money demand confront the monetary authorities with a different set of problems. Here the appropriate policy response is clear in theory. For example, money-demand shifts have at times in recent years resulted in sudden reductions in the amount of money necessary to support a given amount of economic activity. Holding to predetermined monetary targets in the face of such shifts would mean a more accommodative policy than previously intended. Alternatively, by reducing monetary growth targets commensurate with the demand shift, an unchanged degree of monetary restraint would be maintained.

Although the response is clear in theory, in practice there are many problems. It is difficult for the Federal Reserve to know until

well after the fact whether the money-demand relationship has changed permanently. If one could observe money, interest rates, and nominal GNP contemporaneously, one could judge whether these developments were roughly in line with historical patterns. If they appeared to be out of line, a shift in demand might be suspected. Two problems in ascertaining a shift are the long delay before data on GNP are available, and the frequent revisions subsequently undergone by both GNP and money data. Another problem is that the "normal" demand for money cannot be estimated precisely, so that even with timely data it may take several quarters before the shift becomes evident.

Suppose that a money-demand shift is suspected of having occurred, but its magnitude is uncertain. How should the monetary authorities adjust the targets in a way that maintains a steady degree of monetary restraint? First, the targets for the narrow aggregates might be adjusted by shifting the midpoints of the longer-run target ranges according to the "best guess" of how the structural shift will affect the growth rate. Second, if the impact of the structural change is uncertain, the upper and lower bounds of the growth range may have to be widened to reflect that uncertainty. Third, if—as in the past—the broader money measures do not appear to be affected as much by the structural changes, more emphasis could then be put on the broader aggregates in guiding monetary actions. At such times the relatively greater stability of the relationship of the broader aggregates to income and interest rates may give the monetary authorities a somewhat better measure of monetary stringency. The risk in making these adjustments is that the public may lose sight of why such changes are being made—interpreting them as mere tinkering or as devices aimed at loosening monetary restraint. Thus, the monetary authorities stand to lose credibility unless they can convince the public of the need for such adjustments when they are appropriate.

Problems of Short-Run Variability

Once the annual numerical targets have been set, and adjusted for major supply shocks or shifts in money demand if necessary, the next question is how rigidly the targets should be followed during the year. It is important to recognize that random and temporary fluctuations will inevitably occur, affecting both the demand and supply sides of the financial markets. Empirical evidence suggests, however, that deviations from a desired money growth path lasting as long as a quarter do not destabilize aggregate demand if they are subsequently corrected. Hence, rigid adherence to a longer-run target over periods as short as a month or a quarter would require wide fluctuations in interest rates, which could disrupt the economy unnecessarily. In view of the importance of preserving Federal Reserve credibility, it is

essential for the public to understand that such short-run deviations are not nearly as consequential as they are sometimes made out to be.

The problem for the Federal Reserve is to distinguish these temporary disturbances from more permanent shifts in economic relationships for which some response may be necessary. Since the monetary authorities cannot determine until well after the fact whether a divergence in money growth is permanent or self-correcting, they must establish short-run procedures that partially accommodate temporary disturbances but respond with increasing intensity to systematic trends. The current procedures for implementing the longer-run growth target ranges include setting short-run money targets periodically during the year and managing reserves on a day-to-day basis to meet those targets. These procedures are designed to achieve a proper balance between avoiding unnecessary disturbances in the money markets and responding in a timely fashion to sustained movements of actual money growth away from the desired path.

In practice, this process is subject to a number of slippages, both in the relationship between reserves and money and in the actual control of reserves. Because different components of the money stock are subject to different reserve requirement ratios—and some are subject to no reserve requirements—the ratio of reserves to money can vary unpredictably when funds are shifted among types of deposits and among institutions. This hinders short-run monetary control. Changes in reserve requirements and reserve coverage associated with the Depository Institutions Deregulation and Monetary Control Act of 1980, discussed in Chapter 2, should reduce the variation in the money-reserve ratio, but only gradually. Until this transition period is completed, the variation in this crucial ratio will continue.

Even if the linkage between money and reserves were perfectly stable and predictable, the Federal Reserve would still need to be able to control total reserves. Current problems in forecasting the various uncontrollable factors affecting reserves, in reserve accounting procedures, and in the management of the discount window make it difficult to achieve the target for total reserves. The Federal Reserve is working to improve its forecasting techniques and is considering other reforms that would increase its control over reserves.

Thus, one should not expect the Federal Reserve to adhere rigidly to its annual monetary targets in every period during the year. Temporary and largely self-correcting disturbances will inevitably lead to short-run deviations, but these deviations should have few permanent economic consequences. The current targeting process of the Federal

Reserve provides some flexibility in the face of such temporary disturbances, even with unchanged annual monetary targets.

Conclusions

One of the major lessons that emerges repeatedly in the preceding discussion is the need for understanding, by the public generally and the financial community in particular, of the complexities of monetary policy. Monetary targeting provides an invaluable tool to increase monetary discipline, to communicate Federal Reserve intentions, and to evaluate performance. But the advantages of a semi-automatic rule to guide the monetary authorities are not absolute. In a world where economic and financial markets are subject to major and unpredictable changes, deviations from the Federal Reserve's announced intention to reduce steadily the annual target ranges may sometimes be necessary. Targets, once set, may occasionally have to be modified. And allowing short-run deviations of actual from targeted money growth may be called for if care is taken not to let them persist. But if the public interprets occasional necessary changes in the longer-run monetary target ranges, or short-run deviations of actual money growth from those targets, as evidence that the Federal Reserve has lessened its determination to fight inflation, the monetary authorities will be put in an untenable position. If they fail to make the adjustment in the monetary targets that is called for by a major change in economic circumstances, or if they attempt to avoid all short-run deviations of actual from targeted money growth, monetary policy may produce unwanted results. If, on the other hand, they do change the targets or allow temporary deviations, their actions may be misunderstood by the public and their credibility consequently impaired. The monetary authorities will face this problem once again in 1981, as is discussed in Chapter 3.

INCOMES POLICIES

Even if they are followed with persistence and acquire a credibility that favorably affects expectations, monetary and fiscal restraints are likely to reduce inflation only slowly and at significant cost in lost output and employment. Incomes policies attempt to lower these costs. By directly influencing the setting of wages and prices, incomes policies seek to decrease the inflation and increase the growth of output and employment that result from any given degree of demand restraint. A tight monetary target, for example, is compatible either with a small reduction in inflation and zero economic growth or a larger reduction in inflation and positive economic growth. By persuading workers and employers to accept lower pay and price in-

creases, an incomes policy tries to make the second combination possible.

Incomes policies range from the informal pressure on a few large corporations and unions exerted by the Kennedy Administration to the formal review of price and wage increases by the Council on Wage and Price Stability (CWPS) to even more formal schemes based on the tax system, examined in detail below. While mandatory wage and price controls are the extreme form of an incomes policy, the discussion in this chapter is confined to voluntary forms, that is, forms which do not involve legal prohibition of excessive wage and price increases.

An effective incomes policy encourages various groups in society to accept lower wages and prices for the goods and services they supply in the expectation that the wages and prices they pay will also be lower. An incomes policy that gains widespread support can meet these expectations. Workers agree to lower their wage demands, and thus unit labor costs rise more slowly. Firms moderate their price increases, and therefore workers' costs of living rise more slowly. The implicit agreement made among government, workers, and firms to take simultaneous actions to slow the wage-price spiral through the mechanism of the incomes policy is thus successful principally to the extent that people believe it will be successful.

To have a lasting influence on inflation, an incomes policy must do more than lower the current rate of increase in wages and prices. It must also lower expectations about the *future* rate of inflation. Workers must believe that they can achieve their real wage demands with lower nominal wage gains, and firms must believe that large nominal wage gains or other cost increases will be hard to pass on into prices. While our knowledge about the formation of expectations leaves much to be desired, it does suggest that a short-lived reduction in inflation may be insufficient to change expectations sharply. To be successful in lowering inflationary expectations, therefore, an incomes policy probably has to be in effect for more than a single year.

Even more important, an incomes policy will have no hope of a lasting effect unless it is accompanied by monetary and fiscal restraint. If there is excess demand in labor and product markets, or if monetary and fiscal policies create expectations of excess demand, the basic tenet of an incomes policy is destroyed. Individual employers or groups of workers cannot then assume that their own moderation will be matched by moderation from others.

Although incomes policies can help to reduce inflation, they also tend to create losses of economic efficiency. Ideally, economic policy seeks to lower the *average* rate of wage and price increase while leaving individual wages and prices to adjust freely around that average

in response to circumstances in particular markets. In reality, of course, an incomes policy cannot operate on a statistical average but must deal with the wages and prices of individual firms. Therefore, incomes policies inevitably discourage to some extent movements in prices and wages relative to each other. Over time, the failure of relative prices to adjust in response to changing conditions leads to mounting losses of economic efficiency. The more rigid and mandatory in character the incomes policy, and the longer it is kept in place, the greater will be the efficiency costs.

This Administration has judged the benefits of a relatively flexible and voluntary incomes policy to be significantly greater than its costs. In late 1978 the Administration set forth voluntary standards for pay and price increases as the centerpiece of an incomes policy. This section of Chapter 1 briefly reviews that program, and then evaluates a wide range of measures known as tax-based incomes policies (TIPs) under which tax penalties or rewards are employed as a means of inducing moderation in wage and price increases.

THE PAY AND PRICE STANDARDS

For the past 2 years the Administration's incomes policy has centered on the voluntary pay and price standards. Administered by CWPS, this program applied to firms of all sizes, but only large firms were asked to submit data on pay and either prices or margins. The standards set by CWPS were designed to reflect the structures of different industries. Compliance was encouraged by appealing to firms and workers to restrain price and pay increases in the public interest. CWPS also used public opinion and the threatened loss of government contracts to encourage compliance.

Although the standards were voluntary and were in place during the difficult period of the 1979 OPEC oil price explosion, they appear to have played a role in moderating inflation. Studies by CWPS and the Council of Economic Advisers have estimated that annual wage increases were 1 to 1½ percentage points lower during 1979 than they would have been without the standards. The consequent reductions in labor costs also appear to have been passed on to consumers through lower price increases. A more recent evaluation of the pay and price standards by CWPS suggests that the program continued to have a moderating effect in the second year.

After 2 years of operation there seems to be general agreement that the current pay and price standards could not continue to be effective if simply extended in their present form. Workers and firms no longer appear to be willing to moderate wage and price rises in the expectation that the standards will restrain inflation.

One way of strengthening a voluntary standards program would be to supplement it with a tax-based incomes policy, or a TIP. Such a policy would use the tax system to provide tangible incentives to firms and workers to slow the rate of inflation.

As the discussion in this section later concludes, the most effective kind of TIP would be one that rewarded employees of firms whose rate of wage increase was below the standard. Such a program would significantly reinforce the spirit of cooperation used in other voluntary forms of incomes policies without creating as many distortions as a mandatory program. Firms and workers that agreed to moderate their price and wage increases would be making less of a sacrifice under a TIP than under other voluntary programs. And in sectors of the economy in which relative prices and wages were too low, a TIP would allow adjustments. The most serious distortions in relative prices and wages that develop under mandatory controls would be avoided under a TIP.

Several years ago the Carter Administration proposed to the Congress one particular version of a TIP—the “real wage insurance” program—but the proposal was not acted upon by the Congress, and in fact was not subjected to widespread public discussion and debate. TIPs continue to represent an important untried innovation in the area of anti-inflation policy. While TIPs may impose administrative and efficiency costs, those costs appear to be far less than would be incurred by reducing inflation solely through restraining aggregate demand.

Various kinds of TIPs have been suggested. Under a pay TIP, for example, the government would set a standard for pay increases over the coming year. Groups of workers whose average pay increase did not exceed the standard would be in compliance. In one version of the pay TIP, firms whose wage increases exceeded the standard would be assessed a tax penalty. In another version, all workers in a complying group would receive a tax credit, including individuals within the group whose pay raises were above the standard. Similarly, a price TIP would provide penalties or rewards to firms on the basis of their average price increases relative to a set of standards.

In virtually all versions of the TIP it is the *average* rate of wage or price increase within the firm that is compared with the standard for purposes of determining tax penalties or rewards. With this approach, firms are able to change the relative pay and prices of subgroups of workers and products. Merit pay plans and promotions that give individual pay raises in excess of the standard can still be used to encourage productivity.

Although the flexibility of TIPs makes them attractive, using the tax system to reduce inflation poses serious administrative problems. These problems present the major obstacles to designing an effective TIP program. The following sections discuss issues of design in some detail, and a Technical Appendix to this chapter examines other problems in measuring average pay increases.

Several choices must be made in designing a TIP. First, should it dispense rewards or levy penalties? Second, should receiving the penalty or reward depend only on being above or below the standard (a "hurdle" TIP), or should the size of the penalty or reward be graduated in accordance with the difference between the standard and the actual pay or price increase (a "continuous" TIP)? Third, should the TIP be a permanent or a temporary program? Finally, should the TIP apply to pay, to prices, or to both? These choices require striking a balance among equity, efficiency, administrative ease, and effectiveness in reducing inflation. The next section discusses the first three choices in the context of a pay TIP, and presents estimates of the cost and effect of a specific pay TIP. Another section discusses price TIPs.

Varieties of Pay TIPs

For several reasons, a reward pay TIP is probably preferable to a penalty pay TIP. A reward TIP encourages workers to cooperate with a voluntary incomes policy by compensating them for accepting lower nominal pay increases than they would otherwise receive. A penalty TIP, whether levied on firms or on individuals, will tend to undercut the spirit of cooperation necessary for a successful incomes policy. This is especially true because incomes policies are often thought to be more effective in restraining pay increases than in limiting price or profit increases. In addition, although lower rates of increase in wage rates and unit labor costs eventually result in lower price increases, the effect is not immediate. In the short run, wages may increase more slowly but prices might not. Workers would therefore be more willing to cooperate with an incomes policy that partially compensated them for accepting, at least in the short run, lower real incomes than they would have earned in the absence of a TIP. Since a reward TIP provides such compensation, at least in part if not in full, it would be both more equitable and more acceptable to workers than a penalty TIP.

Furthermore, a penalty TIP has other drawbacks. If levied against firms, it might increase the rate of inflation. Some of these firms would be able to pass on the cost of the TIP penalty to consumers, especially if the above-standard increase were industry-wide. Some prices therefore would rise as a result of the TIP. Levying the penalty on individuals rather than firms raises different objections. Such a

penalty TIP would occasionally penalize employees who received little or no pay increase but who worked for firms with large average pay raises. For such individuals, a penalty TIP would add injury to insult and would be perceived as very unfair.

A penalty TIP would raise government revenues, which could be returned to the private sector through offsetting tax cuts. By contrast, a reward TIP would cost the Federal Government a substantial amount in forgone tax revenues. In practice, this means that a reward TIP would only be feasible when tax cuts were being considered. Since inflation and economic growth tend to drive up average effective tax rates, however, periodic tax reductions will be feasible if the share of Federal spending in GNP is kept from rising. Therefore, the key budgeting issue posed by a reward TIP is its effectiveness, compared to other forms of tax reduction, in meeting economic goals.

One difficult problem that must be addressed in designing a TIP is the administrative burden it would impose on private firms and on the government. A TIP limited to a few thousand large firms with computerized personnel records would have much smaller public and private administrative costs than a TIP that included millions of small firms.

But limiting a pay TIP to large firms seems very unlikely to secure the kind of support needed to enact and operate a successful incomes policy. A limited reward TIP would be vigorously opposed by workers in small firms, who would argue, rightly, that they were being deprived of a potential tax cut. But a limited penalty TIP would tend to reduce the real income of workers in large firms and would be vigorously opposed by large firms and large unions.

A second issue in the design of a pay TIP is whether the penalty or reward should be a single amount based only on the wage increase being above or below the standard (hurdle TIP), or whether it should be graduated according to the difference between the standard and the actual increase (continuous TIP). A hurdle TIP only encourages firms and workers to have pay raises below the standard. It provides no direct incentive to lower pay raises that were already below the standard or, realistically, to reduce pay raises that were far above the standard. In contrast, a continuous TIP whose penalty or reward depended on the difference between the standard and the actual pay raise would provide an incentive to lower all pay increases. Lowering a pay raise that was above the standard would result in a smaller penalty. Lowering a pay raise that was already below the standard would mean a larger reward.

The main advantage of a hurdle TIP is administrative. Under a hurdle TIP, firms that expected to grant pay raises above the stand-

ard or that thought the administrative costs of compliance were too high would not be required to keep records. In contrast, under a continuous TIP that penalized firms or workers above the standard as well as rewarded those below, all firms would have to keep detailed records and would have to file additional schedules with their tax returns.

A reward-only continuous TIP would eliminate record-keeping requirements for noncomplying firms, and, as emphasized above, it would also be more equitable than a continuous TIP that included penalties. Such a TIP could offer tax credits, for instance, of 3, 2, or 1 percent of earnings, to employees of firms with average pay raises that did not exceed 50 percent, 75 percent, or 100 percent of the standard. However, even this simple continuous TIP would probably generate more disputes than a hurdle TIP, since firms would have incentives to understate their pay increases to appear to be in a lower bracket. Under a hurdle TIP, only firms near the standard would face such incentives.

The final major issue in designing a TIP is whether it should be permanent or temporary. The answer seems to be that a permanent TIP would not be feasible because of the distortions it would create by discouraging changes in relative wages. A TIP might introduce further distortions as people changed their behavior to circumvent the intent of the policy while remaining technically in compliance with the standard. For a while the distortions created by a carefully designed TIP would probably be small. But as relative prices and wages wandered farther from equilibrium levels, the distortions would become larger and the effects on inflation smaller. The economic costs from the distortions of an effective temporary TIP would be acceptable when balanced against the larger costs of relying solely on demand restraint to lower inflation. Because the distortions would build up over time, however, the costs of a permanent TIP would eventually exceed benefits.

On balance, given all the foregoing economic and administrative considerations, a temporary hurdle TIP—a tax credit to groups of workers whose average pay increase does not exceed a specified standard—seems superior to the other variants. Because keeping records and complying with the standard would be voluntary in this type of TIP, firms that found the administrative costs too high could choose not to participate. As with all forms of TIPs, relative wage changes could still occur in response to economic and other developments, although increases in excess of the standard would “cost” workers the TIP tax credit. The efficiency costs would be small at first, but over time the distortions of the TIP would rise and its effectiveness would fall.

Together with a “jawboning” campaign aimed at producing widespread compliance with the standard by lowering expectations of inflation, such a TIP could lower the rate of inflation. Without jawboning, the cost of inducing compliance among workers with anticipated pay raises far above the standard would be prohibitive. Even workers who expected pay raises near the standard might be reluctant to sacrifice part of a pay raise that might be built into future wages in exchange for a small tax credit that only lasted for 1 or 2 years. The major appeal of wage moderation is that if everyone cooperates by accepting a smaller wage increase, the lower nominal wage gains will be matched by lower price increases. Real wages will not fall, but inflation will. A TIP alone cannot provide sufficient economic incentives to make a low wage increase more attractive than a large one. However, with public appeals to moderation and clear evidence of fiscal and monetary restraint, a TIP can contribute to slowing the inflationary spiral.

Costs and Effects of a Reward Pay TIP

The preceding discussion concluded that the most desirable type of pay TIP would be a temporary hurdle type that provided a reward for keeping pay raises below the standard. To examine the possible usefulness of such a TIP in dampening inflation, the Council of Economic Advisers attempted to estimate the costs and effects of a reward TIP open to all employees, public and private. The reward was assumed to be a fixed percentage of wage income, up to the maximum social security wage base of \$29,700. It was also assumed to be taxable and to be refundable to workers whose income tax liability was less than the reward. The average rate of wage increase in the absence of a TIP was assumed to be 9.7 percent.

The probability that a group of workers would accept a wage increase at or below the standard was assumed to depend upon the size of the reward and the relationship of the group’s potential wage increase to the standard. The smaller the potential wage increase relative to the standard and the greater the reward, the higher the probability of compliance. The results of this estimating procedure obviously depend very heavily on the specific relationships used to calculate the probabilities of compliance for various groups of workers. Since there is no historical experience on which to base these relationships, the estimates presented below are simply examples based upon a considered judgment of the issues.

The costs, effects, and compliance rates that would result from various combinations of standards and rewards were estimated under the assumptions mentioned above. Illustrative combinations of standards and rewards at two levels of cost to the Federal budget are presented in Table 7. These estimates suggest three things. First, for a

given standard, as the reward and the cost rise, so does the reduction of wage inflation. Second, there is some tradeoff between standard and reward. That is, a program with a high standard and a low reward may cost the same as a program with a lower standard and higher reward. Third, for a given budgetary cost, a low-standard, high-reward combination tends to be more effective in reducing wage inflation than a high-standard, low-reward combination. The selection of that combination may create a problem of credibility. A TIP that is relatively effective in restraining pay increases for a given cost will tend to have lower compliance rates than a program with a higher standard and lower reward but which has less of the desired effect on compensation. This happens because higher standards put more people in compliance who do not have to modify their wage behavior.

TABLE 7.—*Estimated effects and compliance rates of various pay TIPs*

Standard — Reward (percent)	Compliance rate (percent) ¹	Effect on wage inflation (percentage points)
\$12 billion budgetary cost: ²		
7 — 2½	50.2	—0.93
7½ — 2¼	55.9	— .87
8 — 2	61.8	— .79
\$16 billion budgetary cost: ²		
7 — 3	54.6	—1.09
7½ — 2¾	59.8	—1.01
8 — 2½	65.3	— .91

¹ Percent of workers in establishments that have an average pay raise less than or equal to standard.

² Net tax expenditure less reduction in Federal compensation. Federal Government pay increase assumed to comply with standard—reduced from assumed economy-wide wage increase in absence of pay TIP.

Source: Council of Economic Advisers.

A TIP should be judged not only on its initial impact, but on its full effect over a 2- or 3-year period. A TIP continued for 2 years with a reduced pay standard in the second year could make a significant contribution to lowering inflation.

PRICE TIPS

Experience with incomes policies here and abroad, including the pay and price standards, suggests that a pay TIP is easier to administer and likely to cause fewer distortions than a price TIP. Nevertheless, a price TIP may be a necessary complement to a pay TIP because restraints on pay alone, even with a reward TIP, might appear inequitable. Furthermore, a price TIP could speed up the effect of a pay TIP by shortening the lag between the lowering of pay increases and their effect on price increases.

It would be unrealistic to set a single price standard for all firms. Productivity growth among industries varies substantially, as do changes in the prices of raw materials and other costs of production.

Recognizing this, CWPS in 1978 established a price deceleration standard which called for all firms to reduce the rate of their average price increases in the program year by one-half percentage point below their increases in a base period. Systematically different movements in productivity and other cost elements among firms and industries should be at least roughly reflected in their base year experience. CWPS found, however, that it had to permit firms to devise various ways of adjusting for uncontrollable cost increases and had to provide separate standards for certain industries, like retailing and food processing.

For several reasons, prices are more difficult to measure than pay. In some industries, such as wholesale and retail trade, prices for the same item vary from week to week. Some firms also give quantity discounts, so that prices for the same item vary from customer to customer. Even if the price of each item did not fluctuate, a small store with only a few employees may sell thousands of different products. Such a firm might have little trouble with the paperwork necessary for a pay TIP, but a price TIP would probably be beyond its administrative capabilities.

Furthermore, a price TIP would face problems posed by new products and quality change in old products. Since new products do not have old prices, no price increase can be calculated for them. Instead, a price standard might have to be based on the firm's average markup over input costs or on the prices of similar products sold by the same firm or other firms. A related issue is the treatment of quality changes. Disregarding these changes might be the best solution for a temporary price TIP, even though doing so would tend to discourage innovation. Alternatively, a program that exempted goods whose quality had changed, and therefore allowed price increases above the standard, would encourage minor product changes that did not really increase quality. Finally, products whose quality improved could be treated like new products, with price increases based on average markup or on the price changes of similar goods.

A price TIP would have to allow firms to pass through to consumers certain increases in the cost of their inputs. For instance, a utility company could not be expected to keep price increases below a TIP standard for long if the price of the oil it used to generate electricity suddenly doubled. To treat the utility fairly, a price TIP would have to allow the firm to raise electricity prices to cover the increased cost of oil. The problem in designing a price TIP is to decide which costs should be granted exemptions, while still encouraging firms to substitute cheaper inputs for more expensive ones.

Given the greater complexity of devising a workable price standard, a price TIP should probably levy penalties and be confined to

large firms. Even among large firms it may be desirable to exempt industries like retailing, in which competition is likely to keep average prices in reasonable relationship to costs. Market forces also make it unlikely that exempting small firms and competitive industries would lead to substantial inequities or to a failure to pass on to consumers the benefits of wage moderation.

CONCLUSIONS

There are no costless ways to reduce inflation. Using demand restraint alone imposes very large costs of forgone output and unemployment for modest reductions in inflation. A successful TIP can shift more of the effect of demand restraint from output to prices and thus can cut substantially the costs of reducing inflation. Although a TIP would itself impose administrative and efficiency costs on the economy, the costs for a short period of time would be small. They would surely be outweighed by the benefits in reduced inflation and lower unemployment that a TIP would bring.

It is useful to distinguish between two broad types of TIP, each of which would have quite different economic objectives. The *first* would be a continuous TIP that would be made a permanent part of the tax code and that would set graduated rewards and penalties according to the size of a firm's wage (and possibly price) increases. Such a TIP would be an attempt to make a major and permanent change in the market system so as to encourage less inflationary wage and price behavior on the part of individual firms. This chapter has suggested that the administrative problems and the distortions introduced into the wage structure would tend to grow over time, while the effect on inflation would decline. Thus, the costs of a permanent wage TIP would soon exceed its anti-inflationary benefits.

A *second* form would be a temporary hurdle TIP based on rewards for wage moderation and would be part of a broad public campaign for voluntary restraint in wage and price increases. The objective of such a TIP, perhaps applied for 2 successive years, would be to provide several downward shocks to the inflationary process, in effect reversing some of the upward shocks which contributed to today's inflation rate. Although such a TIP would also involve administrative costs and distortions in labor-market behavior, these costs would initially be far less than the benefits of the TIP in shortening the period of restraint and slow growth needed to reduce inflation.

As emphasized earlier, a TIP cannot substitute for demand restraint. The latter must also be present; otherwise, any gains produced by a TIP are likely to vanish quickly under the pressure of excess demand. Since a reward TIP would reduce budget revenues like any other tax cut, it must fit into a budget plan that makes tax cuts possible. But if the growth of Federal spending is restrained, pe-

periodic tax reductions will be both feasible and necessary in the years ahead as inflation and economic growth push taxpayers into higher brackets and raise average effective tax rates.

TIPs are novel, and most people are unfamiliar with either the opportunities they present or the difficulties they pose. It is therefore highly unlikely that a TIP could take effect in 1981. But it would be useful for the public in general, and the Congress in particular, to begin evaluating the pros and cons of TIPs so that when the time comes for the next round of Federal tax cuts a TIP program will be seriously considered.

INCREASING INVESTMENT, SUPPLY, AND PRODUCTIVITY

Economic policy must place greater emphasis on supply-oriented measures during the decade of the 1980s for a number of reasons. First, an increase in the growth of aggregate supply, and especially in the growth of productivity, can raise the growth of output and employment that is consistent with a steady reduction in inflation. Second, reducing this country's vulnerability to higher oil import bills will require a substantially increased investment in alternative energy sources over the next 10 years. Finally, even if inflation were not a problem, a speedup in the lagging rate of productivity growth would be essential to maintain the historic advance in our standard of living.

The remainder of the chapter summarizes what has been happening to productivity in the United States and briefly examines some of the reasons why the rate of productivity growth has declined. It also examines the need to increase the share of national resources allocated to capital formation and the Administration's response to that need. Finally, it discusses the relationship between demand- and supply-side policies, and suggests how they must be integrated.

PRODUCTIVITY

Advances in productivity are the foundation of advances in our standard of living. Increases in output per worker lead to increases in real income. Healthy increases in productivity can free the funds needed to improve the conditions of disadvantaged groups while lessening the need for sacrifice elsewhere. Thus, when productivity growth declines, these other advances also are delayed. But expectations of a rising living standard persist. They perpetuate demands for real income gains which can no longer be met and which lead to inflationary increases in wages and to growth in government spending.

Since the mid-1960s, the growth rate of labor productivity has been declining from its postwar highs. In recent years the decline has been so marked as to pose a major challenge to public policy. Be-

cause declining productivity growth brings with it prospects for slower improvement in our standard of living and contributes to inflation, a program to stimulate productivity growth must be a keystone of economic policy.

Table 8 summarizes the postwar history of growth in productivity. The data show a gradual worsening of the productivity decline as time has passed, with the last few years showing sharp declines. While just completed revisions of the data may change the magnitude and timing of the slowdown, its existence and its costliness are unarguable.

TABLE 8.—*Labor productivity growth, 1948-80*

[Percent change per year]

Sector	1948 to 1965	1965 to 1973	1973 to 1979	1978 IV to 1979 IV	1979 III to 1980 III
Private business sector	3.2	2.4	0.8	-0.9	-0.1
Nonfarm.....	2.6	2.2	.6	-1.1	.1

Note.—Data relate to output per hour for all persons.

Source: Department of Labor, Bureau of Labor Statistics.

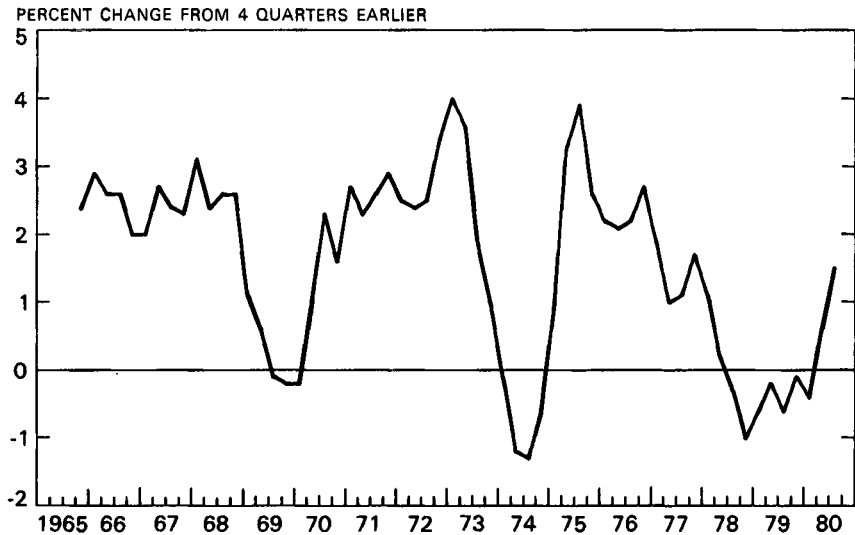
Some of the decline in productivity results from the way we measure it. In particular, productivity measurement counts as an input the costs of governmental and private actions to ensure a cleaner environment, a healthier workplace, and safer consumer products, but it does not count the benefits of these actions as forms of output.

It is difficult to interpret measures of productivity such as those in Table 8 without first distinguishing between changes caused by the business cycle and changes caused by longer-term factors. Because it is costly to hire or to fire, businesses typically do not reduce their work force proportionally when demand slackens or increase it proportionally when demand is expanding. Chart 4 presents the recent history of productivity growth after correction for these cyclical influences. As the chart vividly shows, productivity grew very slowly during most of the years since 1973, and on several occasions actually declined.

It would not be surprising to discover that the slowdown has many causes. Measured productivity growth is a distillation of a number of changes and influences. Many researchers have been in agreement that a number of factors have contributed in roughly equal magnitude to the slowdown. These factors have been discussed in past *Reports*. In addition to increased governmental regulation, particular attention has focused on increases in energy prices, declines in the rate of growth of capital relative to labor, and decreases in spending on

Chart 4

Productivity Adjusted for Cyclical Variation



NOTE.— DATA ARE FOR PRIVATE NONFARM BUSINESS, ALL PERSONS.

SOURCE: COUNCIL OF ECONOMIC ADVISERS.

research and development. But there has also been widespread agreement that a large portion of the slowdown has not yet been explained.

INVESTMENT NEEDS

One of the causes of the decline in productivity growth has been the decline in growth of the capital stock relative to the labor force. Because a rising share of capital formation has been devoted to adjustments to cope with higher energy prices and to complying with environmental and safety regulations, a diminishing fraction of investment has been available to effect gains in productivity. Although these developments may not have been the primary causes of the productivity slowdown, increasing capital formation would nevertheless be an effective way of reversing the slowdown. Many of the factors affecting productivity cannot be directly or immediately influenced by the government, but economic policy—especially tax policy—can influence the pace of capital formation.

As a general rule, an increase in the amount of capital invested per worker is associated with an increase in output per worker—i.e., in increased productivity. There are two reasons for this. First, processes that generate more output per worker usually require more capital per worker, and second, increasing the ratio involves putting newer capital into place. The newer capital is likely to embody more ad-

vanced technology and will therefore increase the efficiency of the capital stock.

During the decade of the 1960s the capital-labor ratio grew at an average rate of about 3 percent per year; over the last 5 years, however, the ratio has remained roughly constant. This development has been due to both the slower growth in the capital stock and to the more rapid growth in employment and hours worked (Table 9). The 1974-79 deceleration in the growth of capital is somewhat at odds with the rough stability in the investment share of GNP over the same period and requires some explanation. A greater share of investment is now being spent on relatively short-lived assets. The ratio of investment in equipment to investment in nonresidential structures has increased in recent years. The result is that each dollar of *gross* investment now yields less *net* investment because the capital stock is depreciating more rapidly.

TABLE 9.—*The investment share, and growth in the capital-labor ratio, 1949-79*

Period	Real business fixed investment as percent of real GNP ¹	Percent change, average annual rate (end of year to end of year)				
		Net capital stock (nonresidential) ²	Employment ³	Hours ³	Capital-employment ratio	Capital-hours ratio
1949-59.....	9.1	4.0	1.1	0.7	2.9	3.2
1959-69.....	9.8	4.6	1.6	1.2	3.0	3.3
1969-74.....	10.5	4.2	1.2	.5	2.9	3.7
1974-79.....	10.3	3.0	3.1	2.8	-.1	.2

¹ Average annual investment-GNP ratio, in percent.

² Net fixed nonresidential business capital, 1972 dollars, end of year.

³ For private business, all persons. End of year calculated as average of year's fourth quarter and following year's first quarter.

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

To restore the growth of the capital stock per worker to that of the 1960s would require that the share of investment in GNP rise by at least 1 percentage point from its recent average of about 10½ percent. Such a development should, at a minimum, restore the productivity growth lost from this source. Further improvement would require yet more investment.

Apart from the necessity of improving the productivity growth rate, there are other reasons why future economic policy should encourage increased investment. Last year's *Report* discussed these needs in detail. The average age of the capital stock at the end of 1979 was 7.1 years. This suggests that much of our plant and equipment was put in place when oil prices were much lower than they are now. Higher energy prices have shortened the service life of older and less energy-efficient capital and made it in the national interest to speed up its replacement. The magnitude of these investments is difficult to

estimate, but it could represent perhaps another 1 percent of GNP per year.

Additional investment requirements arise from the need to continue domestic production of oil, coal, and natural gas at sharply higher investment costs per unit of energy produced, and to expand the investment devoted to alternative energy sources. Conservatively estimated, they amount to about another one-half percent of GNP.

During the late 1960s and early 1970s, before the first surge in oil prices, real business fixed investment averaged about $10\frac{1}{2}$ percent of GNP. In 1978-79, the investment share averaged slightly higher, around $10\frac{3}{4}$ percent, probably reflecting additional investment in the energy industries. On the basis of a rough judgment, continuation of investment in the neighborhood of $10\frac{1}{2}$ percent of GNP would meet the "normal" requirements of a moderately growing economy and hold the capital stock per worker approximately constant, as it has been in the past 5 years. But it would not provide for an expansion of capital per worker or for the Nation's increased needs for energy investment.

Meeting these objectives will require substantial additional investment. Since the growth of aggregate demand and total GNP will be constrained in the years immediately ahead by the need to reduce inflation, the extra investment cannot come from additional GNP growth but will have to displace consumption or government spending, the other major components of GNP. According to the estimates presented earlier, the share that investment takes in total output will have to rise substantially from a normally expected $10\frac{1}{2}$ percent or so to $12\frac{1}{2}$ to 13 percent, and the combined share of consumption and government spending will have to fall by a corresponding amount.

It is virtually certain that such a large increase in the investment share will not be forthcoming without deliberate government policies. The major elements of such a policy lie in a combination of Federal tax measures and expenditure control. In the future, Federal personal tax receipts will take a steadily increasing share of personal income as inflation pushes taxpayers into higher brackets. As oil prices are decontrolled, revenues will be transferred from purchasers—who will pay the higher prices—to the Federal Government through the windfall profits tax. For both of these reasons the ratio of taxes to GNP will tend to rise and the growth of consumption will be depressed. If Federal expenditures are controlled so that their share of GNP does not rise, periodic tax reductions will be possible. Indeed, they will be necessary to prevent even moderate economic growth from being choked off. If a sizable fraction of those tax reductions are of a kind which concentrate on encouraging investment

rather than restoring the growth of consumption, the share of investment in GNP can be raised. Of course, if the share of Federal expenditures in GNP is not merely stabilized but reduced, the room for increasing the investment share of GNP through investment-oriented tax cuts will be even larger.

Within this framework, tax reductions designed to increase the share of investment in GNP must meet two requirements: They must increase the demand for investment goods, and simultaneously they must increase saving—i.e., they should not increase consumption. These two requirements are closely related, but they are not the same. There are a number of measures that might seek to increase saving but have little if any effect on the volume of business investment. Forgoing tax cuts, letting effective tax rates increase, and creating a large Federal budget surplus, for example, would appear to be one way of increasing national saving. Although such a policy would make possible a decline in interest rates, it would also create a substantial fiscal drag, reduce economic growth and private saving, and probably yield no increase in business investment spending. Conversely, measures that increase investment demand without making room for it with an increase in saving will yield an excessive growth in total demand and renewed inflationary pressure. Both aspects of the problem are important. Given the determinants of investment, what tax policies can best increase the demand for investment goods? What form of tax reductions are most likely to be channeled into saving rather than consumption?

INVESTMENT DETERMINANTS AND INFLATION

Expectations about future growth are critical in determining the volume of investment demand for the economy as a whole. But the essence of the earlier discussion was that investment needs to increase by more than the amount that would be associated simply with a normal expansion of output. A number of factors influence the amount of capital that firms want to use to produce a given amount of output. Chief among them are the attractiveness of the return on capital investment as compared with other uses of investors' funds, the perceived riskiness of corporate investment, and the cost and availability of capital.

One lesson that has been learned in recent years is the deleterious effect of inflation on investment. High inflation rates increase the perceived riskiness of investment, and this increased uncertainty makes planning for future capital needs more difficult. The information about relative demand that is contained in price changes becomes clouded when inflation is high. In addition, increasing rates of inflation are ordinarily accompanied by the expectation of sharply

higher interest rates and monetary stringency. The expected slowing of growth in demand reduces the incentive to add capacity.

But by far the most important effect of inflation on investment is its impact on tax accounting provisions and depreciation allowances. Depreciation is a cost of earning income from fixed capital assets. This cost is the reduced value of the asset due to use, aging, and obsolescence. The depreciation allowed for tax purposes is based on the historical cost of an asset. When inflation occurs, allowable depreciation is reduced relative to the cost of replacing the asset at today's price. Inflation therefore raises the tax on capital and reduces the rate of return on investment, and this problem worsens as the rate of inflation increases.

The inflation-induced increase in the tax on income from business plant and equipment is partly offset by the inflation-induced reduction in the tax burden of borrowers. Firms are allowed to charge the full value of their interest payments against income, even though a portion of these higher interest payments amounts to the repayment of real capital to lenders. The effect on the return to investment of this "excess" deduction varies with the proportion of investment that is debt-financed. It also varies with the extent to which inflation is reflected in interest rates. Since an important part of investment is not debt-financed, it is clear that inflation's tax-increasing impact on the value of depreciation allowances outweighs the tax-decreasing impact of excess deductions on the return to business investment.

Some have suggested that the inflation-induced distortion of tax depreciation could be corrected by indexing the value of existing business assets to allow replacement—rather than historical—cost depreciation. But indexing the value of assets would ignore the interest rate offset described in the prior paragraph. Moreover, as with all indexing schemes its administrative and accounting problems would be quite severe, and almost any simple index imaginable would introduce distortions of its own. For these and other reasons, indexing is not an attractive means of correcting the inflation-induced distortion in depreciation allowances.

TAX MEASURES TO INCREASE INVESTMENT

Policymakers have three principal measures to influence investment through the tax system: changes in depreciation allowances, changes in the investment tax credit, and changes in the corporate income tax rate.

Since the effect of inflation in depressing the value of depreciation is such an obvious factor in the recent decline in after-tax rates of return on capital assets, the liberalization of depreciation allowances is an attractive way to enhance investment. It not only provides an overall incentive for investment but, if carefully designed, it can also

correct some of the distortions in investment that accompany inflation. Under proposals for accelerated depreciation, the allowable depreciation on capital assets would be increased. This would permit firms to write off their capital purchases faster. The changes would affect two determinants of business investment. First, they would increase the after-tax yield of capital investment, and thus its attractiveness. Second, they would increase business cash flow and thereby supply a portion of the funds needed to finance additional investment.

Increases in the investment tax credit would have a similar impact on investment incentives. The investment tax credit reduces the purchase price of eligible equipment. It thus provides a direct incentive by raising net return and by increasing after-tax cash flow.

A reduction in corporate income tax rates, on the other hand, influences investment by increasing after-tax profits. This tends to be a less effective stimulus to investment than either accelerated depreciation or increases in the investment tax credit because it has a smaller impact on the net return from new purchases of capital assets. In addition, depreciation liberalization or an increased investment tax credit are only available to a firm to the extent it invests, but a corporate tax reduction would be available whether investment is undertaken or not.

The President's Economic Revitalization Program contains several elements that would significantly improve the outlook for business investment by offering direct incentives to invest in new plant and equipment as well as support for business cash flow. The two major investment incentives in the program are expansion in the coverage of the investment tax credit and a simplified and liberalized form of depreciation allowances.

The proposed changes in the investment tax credit would allow firms to claim full credit for all equipment purchases, even short-lived assets that currently are allowed only a portion of the tax credit. In addition, the investment tax credit would be made partially refundable. Under the current law, the credit can be used to offset the first \$25,000 of tax liabilities plus up to 70 percent (rising to 90 percent by 1982) of liabilities in excess of \$25,000. But the proposed change would allow firms to claim 30 percent of the value of the credit even if they had no tax liabilities for the year. In this way, firms with substantial investment needs but with little or no current earnings would be supported in their efforts to rejuvenate and expand their capital assets. Among these are both younger and smaller firms that are just beginning to grow and larger industries undergoing transition, such as autos and steel.

The proposal for tax depreciation—the Constant Rate Depreciation (CRD) proposal—would allow firms to accelerate depreciation on new equipment and new structures. Under this proposal, the rate of depreciation allowable over the life of the typical capital asset would be roughly 40 percent larger. In addition, the CRD proposal would greatly simplify depreciation accounting.

The President's proposed depreciation reforms share certain common features with two recent tax proposals: the bill reported by the Senate Finance Committee last fall, and the so-called "10-5-3" proposal. Both proposals would liberalize depreciation allowances by shortening the tax life of capital investments. Both would also simplify business accounting by significantly reducing the number of asset categories that firms would have to keep track of. There are important differences, however. In the President's proposal the reductions in tax life have been designed so that there would be, on average, a similar increase in depreciation allowances across all kinds of assets. The "10-5-3" proposal provides very large increases in the allowed depreciation for longer-lived assets but little or no change in the depreciation allowed for many shorter-lived assets. The tax life for structures would be reduced from an average 30-35 years to just 10 years, but, for example, automobile purchases would be allowed a lifetime of 3 years, exactly the same as under current tax laws. Because the "10-5-3" proposal would grant uneven benefits across asset types, the demand for investment goods would be significantly skewed from what would be dictated by economic considerations alone. In addition, the "10-5-3" proposal includes a complex phase-in schedule that may have the perverse effect of delaying capital investment.

Late in the last session of the Congress, the Senate Finance Committee reported a tax bill which also included a depreciation proposal. The Committee's bill would have established a limited number of asset classes with shorter tax lives than under current law. While the Committee's proposal differed from the open-end accounting of depreciation embodied in the President's proposal, its impact on the value of depreciation and on investment incentives would have been closer to that of the President's approach than is the "10-5-3" proposal.

THE IMPACT OF THE ADMINISTRATION'S INVESTMENT INCENTIVES

The investment tax credit and depreciation proposals in the Economic Revitalization Program would reduce the cost of capital to firms by roughly 5 percent and increase corporate cash flow by \$9 billion during 1981 through reduced tax liabilities. By 1985 the increases in cash flow would total nearly \$30 billion annually. It is anticipated that business fixed investment will be 5 to 10 percent

higher than it would otherwise be by the end of 1982, with smaller additional gains thereafter.

These estimates are derived from statistical relationships which link business investment demand not only with investment incentives, such as accelerated depreciation or increases in the investment tax credit, but also with expected capacity needs and demands for output. According to the historical experience which underlies these estimates, increases in investment demand can be affected by accelerated depreciation even when capacity utilization is relatively low—as it is forecast to be over the near term (Chapter 3). Indeed, the recent historical evidence offers additional support for the view that investment spending could proceed at a rapid pace without extraordinary tightness in industrial capacity. During 1976, the first full year of growth following the 1974–75 recession, real business fixed investment grew 5.3 percent despite the relatively low (79.5 percent) rate of manufacturing capacity utilization during that year. In the following year, growth in real business fixed investment was 11.9 percent, while the utilization rate rose to only 81.9 percent.

SAVING

Any increase in the investment share of GNP must be accompanied by a corresponding increase in the saving share of GNP. Total national saving comes from three sources: individuals save out of their personal income; businesses retain, and thereby save, some of their profit income; and governments save when they run a budget surplus, or dissave when they run a budget deficit. It is total national saving that supports total investment. A portion of saving flows into residential investment, investment in inventories, and net foreign investment. The remainder is available to finance business purchases of plant and equipment.

The Federal Government has numerous policy options for changing the level of national saving and thereby supporting a higher level of aggregate investment. But it is important to realize that no one sector works in isolation. A given sector's increase in saving may be partially or fully offset by another sector's dissaving.

Personal tax cuts designed to increase specific types of saving, such as an increase in the amount of tax-free interest from passbook savings accounts, are likely to be the least effective ways to increase total saving. They will increase the flow of saving into those instruments whose after-tax returns have been raised, but they will do so primarily at the expense of those forms of household saving whose after-tax returns have not been raised. They will reshuffle personal saving but increase its amount very little.

General reductions in personal tax rates would increase personal income, which would itself lead to higher saving. In addition, the

higher after-tax return on saving may induce still further increases in saving. This is more likely to occur if the personal tax cuts are directed at higher-income individuals who tend to save relatively more of their additional after-tax income. But there is substantial evidence that, in any case, the personal saving rate responds very little to changes in rates of return or in the tax structure. A large part of the personal tax reduction would therefore go toward increasing consumption.

The most effective avenue at the disposal of the Federal Government to increase the volume of saving is to reduce taxes on business income. Cuts in business taxes would lower government saving, but a large part of the tax cut would flow into business saving. Business after-tax cash flow would be increased. In time, part of the increased cash flow would lead to higher corporate dividends. A very large part, however, would be allocated to an increase in retained earnings—i.e., saving. Evidence suggests, for example, that corporations save more than 50 cents from every additional dollar of after-tax income. Furthermore, some portion of any dividend increase would find its way into personal saving. By contrast, giving the tax cut directly to households would have a smaller effect on saving because households are likely to save a much smaller fraction of every dollar of additional disposable income.

It seems wise, then, to focus government efforts on the sector most likely to allocate a large part of any tax relief to saving—business. A business tax cut would result in relatively large saving, and incentives to expand investment demand would simultaneously be improved. It is this approach that lies at the heart of the President's Economic Revitalization Program.

THE INTEGRATION OF DEMAND-SIDE AND SUPPLY-SIDE POLICIES

Tax reductions which induce additional saving and investment will contribute to faster productivity growth, and this in turn will help reduce inflation. A number of critical questions arise, however, in determining the appropriate type, magnitude, and timing of any tax reductions. First, what kind of an increase in productivity might reasonably be expected from investment-oriented tax cuts of various sizes, and what would be the associated reduction in inflation? Second, to what extent would the improvements in productivity and other supply-creating aspects of a tax reduction offset the increase in aggregate demand they would cause? More generally, how would tax cuts aimed at increasing supply fit into the framework of fiscal restraint that is required to reduce inflation?

EXPECTED PRODUCTIVITY GAINS

Although the effect on investment from a given loss of tax revenues would vary with the form of the reduction (accelerated depreciation, larger investment tax credit, or lower corporate income tax rates), the evidence suggests that each dollar of reduction in annual business taxes might, at the outside and after several years, generate slightly more than a dollar in business fixed investment. To increase investment by 10 percent, a business tax reduction of at least \$30 billion—or about 1 percent of GNP—would be necessary. This larger volume of investment, maintained from 1981 through 1985, would increase the capital stock by about 5 percent after allowing for depreciation. On the basis of the historical relationships between output and capital, such an addition to the capital stock might generate a total increase in the level of productivity of at most 1.5 percent by 1985, or about 0.3 percent per year. In view of the declining rate of productivity growth which the Nation has experienced in recent years, however, this small improvement would be significant.

Such a rise in the productivity growth rate would not be likely to induce a faster rise in money wage demands. Therefore, since the growth of unit labor costs is equal to the increase in compensation per hour minus the rate of growth in productivity, the faster productivity growth rate should lead to a slower rise in costs and prices. In turn, a slower rise in prices would help to reduce the growth of wages, leading to a still further slowdown of inflation. All told, an investment-oriented tax cut amounting to about 1 percent of GNP might produce a 0.3 percentage point rise in productivity growth that would translate, after several years, to just over one-half percentage point reduction in the inflation rate.

DEMAND VERSUS SUPPLY RESPONSES TO TAX CUTS

Tax reductions have two principal effects. On the one hand, individuals and firms will buy more goods and services. As a tax cut is spent and respent throughout the economy, the resulting increase in nominal GNP will exceed the original tax cut. As a result of this multiplier process, aggregate demand will rise by more than the tax cut. But tax cuts also increase the supply of goods and services. Since lower tax rates allow individuals and firms to keep a larger fraction of their income after taxes, the lower rates affect incentives to work, to save, and to invest the savings, increasing potential GNP.

Although the magnitude of the multiplier varies according to the nature of the tax cut, aggregate demand typically rises by about twice the size of a reduction in taxes. Thus, a tax cut equal to 1 percent of GNP will increase aggregate demand by about 2 percent. To match the increase in demand, a 2 percent increase in supply would also be

required. To the extent that its supply response is less than the additional demand it creates, any tax reduction adds to the pressures of demand on the rate of inflation.

But there are two ways in which such tax cuts can be made while still restraining demand. First, tax reductions may offset increases in other taxes. As discussed earlier, inflation pushes taxpayers into higher tax brackets, so that the average effective tax rate—the ratio of tax revenues to GNP—rises. Consumption is depressed and economic growth reduced. In the years ahead, periodic tax reductions will therefore be both possible and necessary to keep aggregate demand from falling. Second, a tax reduction accompanied by Federal spending reductions of roughly the same magnitude will not change aggregate demand; hence, even if the supply response to a tax cut is smaller than the demand response, inflationary pressures will not be generated.

Thus, it is clear that the design and timing of supply-oriented tax cuts depend importantly on the specific relationship between the demand-side and supply-side responses. If such tax reductions fail to generate enough supply to offset the additional demand they create—and the evidence discussed below suggests this to be the case, particularly for personal tax reductions—they must then be integrated like any tax cut into policies of demand management.

THE SUPPLY-SIDE RESPONSE TO PERSONAL TAX CUTS

A 10 percent reduction in marginal tax rates on individuals (approximately a \$30-billion personal tax cut in 1981) would increase the total demand for goods and services by \$60 billion, or 2 percent of GNP. It could also lead to increases in individual work and saving in response to the lower tax rates and thereby increase potential GNP. How much of the increase in demand would be matched by such increases in supply?

The Supply of Labor

The additional production that results from lowering taxes on labor income depends both on changes in the quantity of labor supplied (i.e., the total number of hours worked) and on changes in the average productivity of labor.

Higher after-tax wages make work more attractive. This encourages new entrants to join the labor force and those already employed to work longer hours. Since after-tax incomes have risen, however, people can also afford to work less—to take longer vacations or to shorten their workweeks. Whether the former effect would or would not exceed the latter effect is hard to predict. A preponderance of the evidence suggests that for adult men the two effects approximately offset each other; that is, a cut in income taxes increases the

supply of adult men in the work force only slightly, if at all. Women, on the other hand, and particularly married women, respond much more strongly to higher wages. In the past, the number of adult women in the work force may have increased by as much as 1 percent for every 1 percent increase in take-home pay. Although women are more responsive to changes in their wages than are men, men still outnumber women in the labor force and on average earn substantially more. Therefore, a reduction in personal income tax rates would increase the *total* supply of labor only slightly.

Whether an increase in the labor supply would be accompanied by an increase in productivity is uncertain. While most business investment enhances productivity, an increase in the labor supply would not improve productivity unless it increased the average quality of work performed or the intensity of effort. Productivity might actually fall as the supply of labor increased if the additional labor supply consisted, on balance, of less skilled or less experienced workers.

Alternatively, some have argued that the increased supply of labor from high-income, high-productivity workers would outweigh the increased supply from other workers, so that the average productivity of the labor force would rise. This could happen if high-productivity workers were more sensitive to a given percentage change in after-tax earnings, or if the tax reduction represented a larger percentage change in their take-home pay. Since high-income workers are a small fraction of the labor force, these influences would have to be large to alter total productivity significantly. Studies of high-income workers generally do not find them much more responsive to equal percentage increases in after-tax income. However, a 10 percent across-the-board reduction in tax rates would also mean a larger percentage increase in the after-tax earnings for these workers because their households are in high marginal tax brackets. A 10 percent tax cut is, therefore, likely to produce a somewhat larger change in the supply of high-income workers. Still, even in high-income households it is in fact second-income earners—generally those who have lower productivity—who are apt to be the most responsive to lower tax rates.

Balancing the two opposing forces—the lack of experience of new workers and the possibility of a greater-than-average influx of higher-income workers—it seems unwise to assume that the average productivity of the labor force will be improved by a personal tax cut.

Taking all the relevant factors into account, the limited response of the supply of labor and of productivity to a 10 percent reduction in personal income tax rates is likely to produce an increase in potential GNP of perhaps 0.2 percent to at most 0.6 percent. This result follows in part from evidence suggesting that such a tax cut would

induce an increase in labor supply between 0.3 and 1.0 percent. According to past relationships between labor and production, such an increase in labor supply would lead to the modest increase in potential GNP mentioned above.

The Supply of Saving

A reduction in personal income tax rates increases both the income out of which an individual worker can save and the after-tax return to saving. It would also tend to discourage borrowing by reducing the value of the income tax deduction for interest payments. If the increases in personal saving find their way into additional business investment, productivity will rise.

Most empirical studies have concluded that changes in personal income tax rates would have only a small effect on personal saving. At best, a 10 percent reduction in tax rates would increase personal saving less than 3 percent. This means that the saving rate—the average share of personal saving in disposable income, which over the last 5 years has averaged 5.7 percent—would rise by no more than 0.2 percentage point. The additional saving would at most be equivalent to only about 0.2 percent of GNP.

Even if every dollar of personal saving that resulted from a 10 percent tax cut were invested in business plant and equipment—and some, in fact, would flow into housing—the effects on output and on productivity would be small. If the tax cut and the higher saving continued for 5 years, the additional saving and investment would increase potential GNP by less than 0.3 percent and lead to a negligible increase in the annual rate of productivity growth.

This examination of likely responses thus suggests that even under the most optimistic circumstances, a 10 percent reduction in tax rates would not induce enough additional work, saving, or investment to offset more than a fraction of the 2 percent increase in aggregate demand that would accompany the tax cut.

BUSINESS TAX CUTS

It was pointed out earlier that a tax cut that liberalized the business depreciation allowance or increased the investment tax credit could, after a time, have a fairly substantial effect on the Nation's productive potential. Such a tax cut, amounting to 1 percent of GNP, could raise potential output by perhaps 1½ percent over a 5-year period.

This would still be less than the 2 percent rise in aggregate demand that would also be generated, however. More important, the increase in demand would come relatively quickly, most of it within 1½ to 2 years. The increase in supply, on the other hand, would occur very gradually. As a consequence, the tax cut would tend to

increase demand pressures, especially in the years immediately following it. While tax reductions that are effective in raising investment are essential in a long-term strategy to promote economic growth, business tax cuts, like personal tax cuts, must be designed to fit into an overall framework of fiscal restraint.

CONCLUSIONS

This analysis of the macroeconomic effects of Federal tax reductions suggests several conclusions for the development of fiscal policy:

First, specific investment-oriented tax reductions for business are likely to increase saving, investment, and productivity by a much more significant degree than cuts in personal income taxes.

Second, productivity-oriented tax reductions will yield improvements in the inflation rate that are helpful and significant, but still relatively modest in the context of a 10 percent underlying inflation rate.

Third, the supply response, while a critically important feature of any tax reduction, will be substantially less than the demand response, particularly in the short run.

Fourth, since reductions in both business and personal taxes will increase demand faster than supply, they must be designed and carried out in ways that are consistent with the demand restraint needed to reduce inflation.

It is sometimes alleged that the potentially inflationary effects of a large tax cut can be avoided if the Federal Reserve steadfastly pursues its goal of keeping the growth of the monetary aggregates within tight targets. But if taxes are reduced while the Federal Reserve pursues an unchanged monetary policy, aggregate demand will nevertheless increase, especially in the short run. The increase in demand would lead to a rise in interest rates that would dampen the increase in aggregate demand but not eliminate it. Additional inflationary pressure would then result.

A very large tax cut unaccompanied by the necessary spending cuts would lead to both an increase in inflation and a sharp rise in interest rates. Some, and perhaps all, of the stimulus to investment from tax reductions would be undone by the higher interest rates and the greater uncertainty engendered by a new round of inflation.

Monetary restraint is an absolutely essential element of inflation control and reduction. Tax measures focused on increasing supply can make a significant contribution. But there will be a continuing need for careful and prudent fiscal policies to restrain demand. In recent years the Nation has come to appreciate the potential value of supply-oriented tax policies. In the process of learning some needed lessons about supply-side economics, however, the Nation cannot

afford to forget its hard-learned lessons about the need for demand-side restraint.

The three central elements of a macroeconomic policy to reduce inflation and advance the Nation's prospects for healthy economic growth have been set forth in this chapter: maintaining a persistent and prudent course of demand restraint; putting in place an improved incomes policy using tax incentives to induce wage moderation; and increasing the share of the Nation's output going to investment. The next chapter deals with the challenge of inflation and growth at the level of individual markets and sectors. It concentrates on measures to increase the economy's flexibility and capacity for adjusting to change.

Carrying out these policies will require patience and, in the interim, some sacrifice. But if they are followed with persistence they promise a substantial payoff in improved economic performance.

TECHNICAL APPENDIX TO CHAPTER 1

MEASURING PAY INCREASES UNDER A TIP

Once the basic features of a pay TIP have been chosen, several problems in the measurement of average pay increases must be solved. These problems arise from changes in the composition of a firm's work force, from fringe benefits, and from multiyear union contracts with cost-of-living adjustments. Resolving these problems requires striking a balance among administrative convenience, equity, efficiency, and the effect on inflation.

COMPOSITION OF THE WORK FORCE

Like any well-designed tax, a successful TIP must use a measure of average pay increase that is unambiguous, that alters behavior in undesirable ways as little as possible, and that is fair in its treatment of different types of firms and workers. The simplest indicator of average pay—total wages received by a group of workers divided by the total number of hours they work—is a poor measure because it changes both with hourly wage rates and with the number of overtime hours. Even if wage rates increased by less than the TIP standard, an increase in the average amount of overtime, paid at a premium, could put the group out of compliance. Using this measure would therefore discourage overtime work, an undesirable distortion. A better measure would use straight-time wages divided by straight-time hours, with adjustments to reflect changes in the length of the standard workweek or the size of the overtime premium.

Because of possible changes in the composition of the group, however, a simple measure of straight-time wages divided by straight-

time hours also has drawbacks. For example, during a recession a firm may grant a pay raise far below the TIP standard and also lay off large numbers of low-seniority workers. Because low-seniority workers tend to have below-average wages, the remaining workers will have higher wages than the original group. Consequently, this measure of wage change may well show that the increase in average pay exceeded the standard even if no individual worker received such a large raise. Conversely, when firms hire additional low-seniority, low-wage workers during expansion, the group may appear to be in compliance even if all continuing workers receive pay raises above the standard.

This measure is also affected by changes in the skill-mix of the work force. If a firm increases the proportion of low-wage, less skilled workers in its work force, the measure will show a calculated wage increase less than the "true" wage increase. A decrease in the proportion of less skilled workers will show just the opposite. Because of these features, the measure also discriminates in favor of growing firms and against declining firms, since new workers are, on average, likely to be paid less than those already on the payroll.

More important, this measure introduces an element of uncertainty. A firm could agree with its workers to grant pay increases that met the standard—citing the TIP reward as an offsetting factor—and then unexpectedly discover at the end of the year that small changes in the composition of the work force had put the group out of compliance. Firms and workers who had negotiated small pay raises in anticipation of receiving a TIP reward or avoiding a penalty might find themselves above the standard, while others who had ignored the standards could be surprised to find themselves in compliance. An unpredictable measure is not only unfair; it also will have less effect, since firms and workers will tend to ignore the standard if they cannot be sure that small pay raises will result in compliance.

Data collected by the Bureau of Labor Statistics from a large sample of establishments suggest that significant changes in the composition of a firm's work force are common. As Table 10 shows, 22 percent of the workers in the motor vehicle industry were in establishments that experienced an increase in their calculated straight-time hourly earnings of more than 13 percent between December 1978 and December 1979. During this period the United Auto Workers' contract, which covered a majority of the workers in these establishments, provided for an increase of about 11 percent, including cost-of-living adjustments (COLAs). Therefore, most of the establishments with increases in calculated average hourly earnings larger than this must have experienced a change in the composition of their work force.

TABLE 10.—*Distribution of workers by percentage change in average establishment wage, selected manufacturing industries, December 1978 to December 1979*

Percentage change in average establishment wage	All manufacturing	Motor vehicles	Food processing
	Percent distribution		
Less than 0	5.1	5.9	8.5
0 to 6.9	18.6	7.8	24.8
7.0 to 9.9	27.4	19.3	28.6
10.0 to 12.9	25.4	44.8	17.8
13.0 to 19.9	17.2	13.7	13.2
20 and over	6.3	8.5	7.1

Source: Department of Labor, Bureau of Labor Statistics.

Additional evidence suggesting large shifts in the composition of the work force is provided by the percentage of workers in establishments who experienced actual declines in their average nominal wage. For all manufacturing, 5.1 percent of workers were in establishments that reported declining money wage rates, and 8.5 percent of those in food processing were in establishments that reported nominal wage declines. It is hard to believe that such a large percentage of workers were in establishments that actually cut the average nominal wage for their entire work force during a period in which the CPI rose by 13.3 percent.

Clearly, a satisfactory measure of wage changes will be one that is not affected by systematic changes in work force composition. The problem can be solved either by a wage index or by a measure that counts only the hours and payroll for those workers who were with the firm throughout the year. A wage index, like a price index, combines the wage rates for specific types of jobs into one measure. The weights used reflect the percentage of a firm's workers in each skill or seniority level. A wage index reflects the "true" average pay increase for all employees and is not affected by changes in composition or seniority. Such an index would be relatively easy to construct for many firms. Union contracts already set wage rates for specific jobs. Some large nonunion firms and many States and local governments also have pay scales that list the salary levels of workers in each job category and seniority step.

These union and nonunion pay scales could be used with the base period percentages of workers in each job category to calculate a firm's average pay raise, just as a price index is used along with a base period market basket of goods to measure price increases. To ensure that the firms did not give raises above the standard by promoting workers, rates of promotion above past experience would be included in the calculation of pay raises. Doing so, of course, may

reintroduce the problem of changing skill mix if the additional promotions reflect an upgrading of skills.

Nonunion firms that do not have pay scales could calculate their average pay raise from the wages and hours of those workers who continued to work for the firm throughout the year. Such a measure would not be affected by changes in the composition of the work force, since the wage rates of former or new employees would not enter into the calculation. Because firms generally hire new workers at the bottom and retire or lose workers from the top, the average pay raise for continuing workers will exceed the average pay raise for all workers in a firm with stable composition but high turnover. Therefore, measures for continuing workers must be adjusted to allow for promotions.

MEASURING FRINGE BENEFITS

A critical element in the measurement of pay increases is the treatment of fringe benefits. The cost of a given package of fringe benefits can increase for either of two reasons: because the package has become more generous (the employer is buying more services for the employees) or because the price of a given set of services has risen. For example, an employer who adds dental benefits onto the health insurance provided for employees would increase the cost of health insurance by improving the package of benefits. Health insurance premiums might also rise for a given set of benefits simply because medical care in general becomes more expensive.

Which increases in the costs of fringe benefits should the TIP include as increases in compensation? One approach is to include all increases in the cost of fringe benefits, both those that reflect higher prices for a fixed package as well as those that reflect improvements in the package. This would treat each dollar paid in fringe benefits exactly like a dollar paid in cash wages. Such an approach, however, would require extensive work to evaluate the cost of all benefits. Although determining the cost of fringe benefits purchased from other organizations, such as medical insurance, would be simple, determining the cost of other fringes, like unfunded pension benefits, would be more difficult. Another drawback is that firms and workers might object to being ruled out of compliance for cost changes they could not control, such as the cost of employer health plans.

An alternative treatment would be to exclude fringe benefits completely from the calculation of a group's average pay raise. This would involve the fewest administrative problems. It would, however, provide a strong incentive for firms to give all increases above the standard in the form of fringes rather than cash, since the group would be in compliance as long as cash remuneration did not increase by more than the standard. This would defeat the purpose of

the TIP and would also distort the structure of labor compensation for a long period.

A compromise solution would be to include only the cost of improvements in benefit packages. For example, the cost of new medical benefits would be charged against the standard but increases in the cost of existing benefits would not. This would reduce the difficulty of estimating the costs of some types of fringes without creating an incentive to divert all pay increases above the standard into benefit improvements. Although fringes would still be treated more generously than cash wages, this compromise would eliminate a certain amount of paperwork.

MULTIYEAR CONTRACTS

A third problem in measuring wage increases is the evaluation of new multiyear union contracts. A TIP will have its greatest effect on the wage settlement if the firm and union know when they are bargaining whether the contract's provisions are in compliance with the standard. For this reason, and to prevent firms and unions from postponing large wage increases to the later years of a contract in order to be in compliance during the first year, the entire contract would have to be evaluated in advance. Since most major union contracts include COLAs, evaluating wage increases in new multiyear contracts requires predicting future price inflation. (A TIP can have no direct effect on pay increases in existing multiyear union contracts. Therefore, they can be evaluated at year-end like the pay increases of non-union workers.)

Because the number chosen will affect expectations and thus will affect the success of the TIP, there may be a temptation to use an overly optimistic prediction of future price increases. If this occurred, union workers with COLAs would often be judged to be in compliance but then receive wage increases above the standard because the actual price increase exceeded the prediction used to evaluate the COLA. This would seem unfair to firms and workers who do not have COLAs and, if substantial, would set in motion catch up pressures on the part of nonunion workers that could increase inflation in subsequent years. To some extent, these considerations are counterbalanced by the fact that union workers would have to restrain their wage increases for a 2- or 3-year contract period in order to be in compliance with a TIP that may only last 1 year.

CHAPTER 2

Improving the Adaptability of the Economy

THE PAST DECADE witnessed a substantial expansion of Federal involvement in many sectors of the economy. During this period many economists devoted a good deal of attention to ascertaining the benefits and costs of that involvement. Much less attention was paid to the loss of flexibility that accompanied greater government influence over private economic decisionmaking. But as new government programs increased the number of objectives to be satisfied in the making of economic decisions, the net result was to restrict the Nation's ability to respond quickly to economic and technological change.

Limitations on flexibility are sometimes desirable. Federal requirements for the safe disposal of toxic wastes, for example, are undoubtedly a legitimate way to reduce the flexibility of chemical manufacturers and users. But programs that are excessively complex or overly stringent reduce flexibility unnecessarily. Efficiency suffers, productivity declines, and the economy becomes even less responsive to change.

As government involvement in the economy has grown, so have the overtly political aspects of economic decisions. Representative government is quite responsive to claims from individuals, groups, or regions that proposed policies will benefit them or do them harm. Since all interventions, no matter how small, have the effect of harming some and benefiting others, there has been growing pressure to "manage" these gains and losses to produce "fairness" rather than economic efficiency. Many of the recent arguments over deregulation, for example, have tended to focus less on the benefits of deregulated markets than on the income losses of the persons or industries that have been protected in the past by Federal economic regulation. Similarly, discussions of the problems of declining industries have concentrated on the immediate fate confronting the companies and workers in those industries rather than on the more diffuse benefits associated with greater national economic efficiency.

Compassion for the human problems that accompany rapid economic adjustment may often be a valid argument for policies which

slow the pace of adaptation. But excessive concern over who gets what can add rigidities to the economy and lead to the result that almost everyone gets less.

The shocks to the world economy that occurred in the 1970s—huge and abrupt increases in energy prices, unprecedented strains on the financial markets, major fluctuations in agriculture—would have tested even the most flexible and adaptable of economies. Since the adaptability of our economy was already less than ideal, these shocks hurt us more than they might have in other circumstances. Similar shocks are likely to occur in the next decade or two. The Nation therefore must prepare itself to deal with these shocks by increasing the adaptability of its economic institutions.

This will pay important dividends in the Nation's fight against inflation. As pointed out in Chapter 1, rigid economic institutions sharply limit the effectiveness of macroeconomic policies. They can turn what otherwise would be transitory pressures for higher prices into permanent price increases. Public and private barriers that prevent resources from flowing out of inefficient sectors to more efficient ones help create bottlenecks that impede efforts to promote economic growth.

The need, therefore, is for greater flexibility, not merely to permit individual sectors to respond more effectively to rapid economic change, but also to permit the economy as a whole to withstand such change without continual increases in the rate of inflation.

Because energy markets are such an important example of an area in need of added flexibility, this chapter first addresses energy problems. The second section addresses two major types of regulatory reform: eliminating obsolete regulatory structures and improving the functioning of necessary regulation. Both kinds of reform serve to eliminate unnecessary costs and reduce unjustified rigidities. The third section describes some of the far-reaching changes taking place in the financial markets and the strains these changes are creating. The fourth section describes the changed role of the agricultural sector and the corresponding need for more flexible instruments of agricultural policy. The fifth section addresses the problems of structural adjustment that are being created by changing demographic and industrial conditions, while a final section discusses the growing pressures on government to identify and aid promising industries and sectors.

ADAPTING TO ENERGY UNCERTAINTY

No sector of the economy better illustrates the increasing need for flexibility and adaptability than energy. The challenge is not only to

use less and produce more energy in the face of higher energy prices, but also to deal with the uncertainties of supply and price.

ADJUSTING TO HIGHER ENERGY PRICES

Available evidence suggests that the adjustment to higher energy prices is well underway. Between 1973 and the third quarter of 1980, real energy prices increased by 59 percent and the energy input per dollar of real gross national product (GNP) dropped by 19 percent. As energy prices rose, conservation of energy resources became increasingly attractive in economic terms. Shortages and uncertainty of supply also induced conservation, sometimes very rapidly.

While many uses of energy can be adapted relatively quickly to higher prices, others require more time. Consider the time required, for example, for the economy to feel the full effect of a 10 percent increase in the real price of gasoline. Studies suggest that the initial adjustment of consumers to such a higher price—perhaps by carpooling or taking shorter recreational trips—would reduce gasoline use by only 2 percent. But over a longer period, as consumers are able to buy more fuel-efficient vehicles, change residential locations, and the like, the fall in gasoline use may amount to perhaps 8 percent. Thus, a major portion of the savings in energy use compelled by the substantial 1979–80 increases in oil prices is still before us.

Rising prices also encourage suppliers to develop new energy sources. In the first 6 months of 1980, domestic oil producers drilled 19 percent more wells in the United States than they did during a comparable period in 1979 and opened 15 percent more oil and gas wells than they did in the entire year of 1973. For the first time in years, additions to proven natural gas reserves may have exceeded withdrawals. The development of nonconventional fuel sources—gasohol, solar energy, and so on—has also been occurring at a stepped-up pace.

ADJUSTING TO PRICE AND SUPPLY UNCERTAINTY

Perhaps the biggest challenge in energy today is to minimize the economy's vulnerability to disruptions in the supply of oil. Disruptions can vary both in size and duration. The ones experienced so far, though painful to the world's economies, have been relatively small. But much larger ones are conceivable. There is little doubt that a prolonged reduction in Middle Eastern oil supplies could severely damage the U.S. economy. A recent simulation study by the Congressional Budget Office (CBO) indicated that a yearlong cutoff of oil supplies from the Persian Gulf might reduce oil supplies available to the United States by about one-third, and output by nearly 10 percent—almost \$3,000 per household. Although estimates of this sort are necessarily subject to a high degree of uncertainty, the con-

sequences of such an interruption on employment, wages, and prices clearly would be massive. Moreover, the threat of disruption, small or large, hangs like a cloud over the economy and thus affects consumer and investor expectations. It is therefore imperative that the Nation have policies to reduce its vulnerability to oil supply disruptions and to deal effectively with the consequences of any vulnerability that remains.

One simple and often-used measure of vulnerability is the level of the Nation's dependence on imported oil. In 1977 the United States imported a record average of 8.8 million barrels of crude oil and petroleum products per day. By late 1980, however, imports had fallen to about 6.5 million barrels per day. Although some of this drop was due to the recession and high inventory levels, a larger part of the decline can only be accounted for by conservation and additional domestic production.

Dependence on imported oil, however, is not equivalent to vulnerability. If imported oil came from many small geographically dispersed producers, each unlikely to cease production suddenly, even a high level of oil imports would mean little vulnerability to interruption. At the other extreme, even a zero level of oil imports would not totally protect the U.S. economy in the event of extreme instability in the world oil market. The United States could not stand by and watch the rest of the world's economies collapse without suffering irreparable economic harm itself, and would not do so, even if it were possible to isolate itself from such damage.

Thus, vulnerability is not easily measured. It is related in part to the ability of the Nation's capital stock to adjust rapidly enough to changes in the world price of oil, and in part to the fact that an oil supply interruption would result in large domestic and international transfers of wealth, large losses in output, losses of consumer and investor confidence, and a sharp surge in inflation.

The experience of past episodes of supply disruption has taught policymakers to appreciate the limited ability of governments to allocate scarce petroleum supplies and the long-run problems that result from attempts to shield consumers from the consequences of higher prices. These same episodes have also shown that such disruptions are accompanied by other impacts that private markets cannot be expected to take into account. For example, private economic decision-makers—consumers and business firms—are unlikely or unable to factor the substantial macroeconomic effects of an oil supply disruption into their individual responses. Therefore, they will tend to take fewer preventive measures than is socially desirable. Moreover, the expectation of government intervention is also likely to affect private behavior. The experience of past disruptions may have created the

expectation of price controls or fuel allocation in the event of another disruption and thus further reduced the incentive for individual consumers or business firms to take steps to protect themselves.

Large disruptions would not only intensify these effects but pose the added risk that energy markets would be overwhelmed—at least for a while—by rapidly changing information, bottlenecks in distribution to industry, supply uncertainty, and the potentially destabilizing influence of hoarding. Thus, the proper mix of public and private responses to an oil supply disruption will depend upon a number of factors, including the magnitude and expected duration of the disruption and the steps taken in advance to reduce its impact.

Improving Adaptability

One way to reduce the economy's vulnerability to disruptions of foreign oil supplies would be to increase the short-run responsiveness of domestic production and consumption to short-term changes in price and supply. If domestic producers could easily expand supply and users could easily reduce demand, large transfers of income would not be generated by the price movements needed to balance supply and demand. Thus, the more elastic the demand and supply of energy are in the short run, the less vulnerable the economy will be to a disruption in foreign oil supplies.

Flexibility in fuel use is one way to increase short-run elasticity in demand. Today, for example, U.S. industrial facilities that burn over one million barrels of oil per day have the technical capability to substitute domestic natural gas on very short notice. The potential flexibility of the country's industrial users of energy is apparently several times this level, however. According to one source, it is possible to develop the capability to substitute coal and natural gas for an additional four million barrels per day—for a total in excess of one-fourth of present U.S. oil consumption.

Just what degree of fuel-switching capability is economically attractive is another matter. Building fuel-use adaptability into industrial facilities is costly; it requires additional capital investment and may increase operating expenses. Further, to utilize such flexibility, there must exist both sufficient supplies of other fuels and the ability to deliver them where needed.

The general dilemma is that the Nation's capital stock must be sharply modified in the face of higher energy prices, but it also must be enabled to function despite uncertainty of energy supply. As a result, the energy-using capital stock of the future will embody a compromise between greater productivity and fuel-use flexibility.

Actions can also be taken to increase the short-run elasticity of energy supply. Sizable fuel inventories, in particular, would provide a substantial degree of flexibility. At the outset of the Iran-Iraq war in

September 1980, world oil stocks were at record levels. U.S. domestic stocks, including oil not yet ashore, were some 300–400 million barrels above the minimum operating needs. In contrast, world reserves were quite low when the supply of Iranian oil was disrupted in late 1978. The shortfall associated with the 1980 interruption was comparable in size to the shortfall of 1978–79. Yet the earlier disruption resulted in a sudden and rapid escalation of world oil prices, while no such shock occurred after the 1980 disruption. The substantial size of world and domestic oil reserves played an important role in preventing panic and maintaining relative price stability.

Thus, private contingency stocks and public stocks such as the Strategic Petroleum Reserve can provide an important buffer to future disruptions. The strategic reserve is far less than adequate, however, and an increase in its size is essential to reducing our vulnerability to foreign supply disruptions. But care must be taken to assure that such a buildup, by its effect on the world oil market, not be destabilizing. Furthermore, the reserve program should not merely substitute a stockpile created at government expense for an increase in private precautionary inventories. This could be partially avoided by announcing a plan that would use the strategic reserve only in the event of a relatively large disruption and allow market forces to come into play during smaller ones.

To date, attention has focused on *oil* stockpiles. But the installation of additional industrial facilities with the flexibility to use more than one type of fuel would make stockpiles of other fuels equally useful in reducing upward pressure on world oil prices.

Flexibility in fuel use would not reduce our vulnerability, however, if constraints in the distribution network impeded the use of available alternative fuels. Propane, for example, is a frequently used alternative to natural gas, but distribution problems limited its use during natural gas curtailments in 1976 and 1977. One solution would be to maintain supplemental distribution capacity: additional handling or line-haul facilities in the case of coal, additional pipeline or surge pumping capacity in the case of natural gas, and additional wheeling and coal generating capacity in the case of electricity. Certain of these strategies, particularly the wheeling of electricity, have been utilized in the past to reduce the effects of temporary fuel curtailments.

Dealing with a Disruption

Increasing private and public stocks of the different types of fuels and improving fuel-use flexibility cannot completely eliminate the Nation's vulnerability to a major interruption in oil supply. Both international obligations and the high cost of any actions to reduce our

dependence on foreign oil mean that some degree of U.S. vulnerability to oil supply disruptions will persist for a long time to come.

Even as a theoretical question, it is hard to know the level of oil reserves that would be needed to totally insulate the United States from a supply disruption. Present plans call for a Strategic Petroleum Reserve of approximately one billion barrels, which is the equivalent of about 150 days of imports at current import levels. But the reserve is only intended to reduce our vulnerability, not to eliminate it. Let us suppose that a publicly owned stockpile of oil equivalent to a year's imports (about two billion barrels) would provide close to absolute protection from a disruption of Middle Eastern supplies. And suppose further that the acquisition of such a stockpile would not raise the world price of oil, although there can be no doubt that it would. Such a stockpile would then cost approximately \$70 billion to acquire at the current price of about \$35 per barrel. It would also require the expenditure of about \$9 billion per year in storage and carrying costs. This is expensive insurance. Moreover, it would take several years of uninterrupted accumulation to acquire such a stockpile.

Since it is impractical to eliminate our vulnerability, it is essential to develop policies and programs that would assure fair and efficient distribution of fuel supplies during a period of substantial disruption and minimize the negative impact of such a disruption on the economy.

The Nation's current emergency plan, the authority for which expires on September 30, 1981, has two steps: a program of oil product allocation during the early stages of a major disruption, supplemented by a program of gasoline rationing if the disruption is large enough and continues long enough. The operation of this plan requires either standby price control authority or the ability to grant and implement this authority on extremely short notice.

The current plan is designed to reduce the large transfers of income from domestic energy users to domestic energy producers that would otherwise occur during a major disruption. The plan is thus especially responsive to the goal of equity. By reducing transfers of income the plan is also intended to meet the macroeconomic goals of reducing the economic drag caused by increases in oil prices and preventing temporary energy price surges from becoming permanent through formal and informal wage and price indexing.

But the plan has many deficiencies, only some of which are administrative. Although the allocation part of the program would use an existing bureaucratic structure—albeit one scheduled to expire in September 1981—the rationing part of the plan would require the creation of an untested bureaucracy that would use the postal system

to distribute rationing coupons and the banking system to account for them.

An even more important drawback is the plan's adverse impact on efficiency. Its allocation and price control aspects may already have had the effect of discouraging private parties from taking self-protective measures, since they would deny those who invest in emergency fuel stocks or fuel flexibility the benefits of that investment. The plan's intended reliance on historic patterns of fuel use in making allocations would reduce flexibility by preventing users from switching to more abundant fuels because they had not previously used those fuels in substantial quantities.

Finally, the plan emphasizes a reduction in gasoline use in the event of a disruption. Gasoline alone, however, could not absorb the brunt of a major emergency. If a complete cutoff of oil supplies from the Persian Gulf were handled by reducing the amount of oil refined into gasoline, the availability of gasoline in the United States would be reduced by over 75 percent.

Thus, the present strategy for dealing with a major disruption is a three-way compromise between the administrative problems of implementing an emergency plan, the allocation deficiencies of such a plan, and the need to deal effectively with the severe macroeconomic consequences of a major disruption.

One alternative plan would be to let uncontrolled market prices apportion available supplies. Such a plan would eliminate the problems of bureaucratic administration, but it would expose the economy to the consequences which might result from the building of fuel inventories at peak prices when the Nation's interests would be served by drawing inventories down. Such hoarding, as well as other complications, might occur because the problems of rapidly communicating market information during uncertain supply conditions would make it difficult for the market to cope with a large disruption.

Furthermore, public declarations that the market would be permitted to operate without constraint during a large disruption would be likely to lack credibility, since the market has not been permitted to act freely during previous relatively small disruptions. Private parties are likely to assume that the government will also intervene during a major disruption, and they may modify their own actions accordingly. For example, given their political visibility and small numbers, the Nation's oil producers and distributors might pass up the opportunity to maximize short-run profit and engage instead in their own form of product allocation. Thus, the choice might not be between a market solution and government allocation, but between public and private allocation plans.

While the market solution might promise the greatest degree of allocative efficiency, it would not respond to the problems associated with the transfer of tens of billions of dollars from domestic consumers to overseas producers. More importantly, a "business as usual" strategy would fail to address any of the macroeconomic consequences associated with the large and sudden transfers of income among sectors of the domestic economy—possibly amounting to hundreds of billions of dollars—that would occur when business was quite decidedly not "as usual."

Another proposal—one that attempts to deal with the macroeconomic effects—would allow the market to allocate oil supplies during a major disruption but tax the resulting windfalls reaped by domestic suppliers and rebate these new tax revenues in a way that would address the income distribution and macroeconomic problems accompanying the disruption. Although attractive in theory, such a plan would present many practical difficulties. For one thing, as already noted, the magnitude of the fiscal drag that would occur from allowing the free play of the market to determine prices might be immense, and the amount of administrative effort that would be required to capture the windfall profits on such huge sums and recycle them efficiently would be substantial. This administrative burden might even rival that of the present rationing plan.

Neither the present plan nor the tax rebate alternative would limit the large international transfers of wealth that would accompany a severe oil-supply disruption. Some economists have recommended the imposition of an import fee during a disruption to capture these windfalls. The ability of such a plan to achieve this goal is uncertain, however, since its success would depend a great deal both on precise timing and on the response of the oil-supplying nations: major overseas suppliers, having political as well as economic goals, might simply respond to such a fee by raising their prices and reducing quantities in an attempt to maintain a constant net revenue. While the success of an import tax or fee is not certain, it nonetheless merits further exploration because it is presently the only proposed method of responding directly to a transfer of income from domestic consumers to foreign producers.

Toward a Policy to Deal with Vulnerability

Developing an appropriate set of policies to deal with vulnerability to energy price and supply shocks is an immense challenge. The dilemma facing the policymaker is when to rely on private market responses and when to take the risks that accompany government-operated price control, allocation, and taxation schemes. The answer would appear to have three parts. First, use the superior allocative abilities of private markets whenever possible. The markets appear

capable of handling small- and medium-sized disruptions, such as those experienced to date. Second, take technological and stockpiling initiatives to increase short-run flexibility in energy use and supply. This will increase the size of disruptions where a market response remains appropriate. To achieve such increased energy-use flexibility, it would be beneficial to develop strategic stockpiles of fuels in addition to oil. The use of these fuels during emergencies would require investments in supplementary distribution capacity. Finally, since measures to reduce vulnerability will take time to put into place, and since the Nation will never be totally invulnerable, contingency plans must be developed to deal with disruptions so large that they might overwhelm the private market.

For both political and economic reasons, a program of allocation by price alone is unlikely to be adequate during a very large disruption. Too many problems would flow from any policy that placed a short-term "tax" amounting to as much as several thousand dollars per year on each U.S. household. Although any nonmarket mechanism would be administratively cumbersome and lack the allocative efficiencies of a pure market response, proper design could materially reduce these administrative and allocative problems. The present rationing scheme has much more precisely targeted distributional goals than most of the proposed programs of general tax rebates. Thus, differences in the value placed on achieving equity explain much of the difference in administrative complexity. A rationing plan that gave primary weight to minimizing the macroeconomic consequences of a disruption, however, would have far fewer administrative complexities. Such a plan might forgo the establishment of the hundreds of local boards that would otherwise be needed to adjudicate individual inequities.

Responding to the challenge of energy vulnerability will not be made easier by ignoring the limits and complexities of alternative policies. Thus, while the benefits of a large and well-managed Strategic Petroleum Reserve are very substantial, it is also true that a preoccupation with the reserve's potential may divert attention from the fact that the acquisition of reserves takes time, and that even substantial reserves will not eliminate vulnerability. Similarly, the allocative efficiency of the market would be superior to any government-run price control and allocation scheme, yet the market alone would not be able to cope with all of the problems associated with a major interruption. There is no doubt that the present contingency plan for gasoline rationing has major shortcomings, but it is also true that new and untested schemes for taxing and rebating windfall profits could mirror in their complexity the rationing they seek to avoid.

High energy prices and excessive dependence on imported oil supplies are two major dimensions of the energy problem. However, the uncertain timing of increases in energy prices and the uncertainty of supply are two other dimensions which must command the attention of policymakers. Higher prices alone—if known in advance with a fair degree of certainty—would pose a costly but otherwise straightforward problem of economic adjustment. Supply uncertainty, however, adds a potentially dangerous complication. The Nation's capital stock must be made more energy efficient, and the Nation must change its energy-using habits, but both of these changes must be accomplished in ways that assure the flexibility to respond to sporadic episodes of price escalation and shortage. The challenge to policymakers is to adopt energy policies which effectively respond to legitimate concerns about equity and macroeconomic problems but neither penalize private efforts to respond to energy uncertainty nor unduly rigidify economic decisionmaking.

IMPROVING REGULATORY PRACTICES

Over the past decade there has been a growing awareness that Federal regulatory activities exert substantial influence on the economy. In trying to measure this influence, some have focused on the amount of capital required to comply with Federal regulations, some have focused on the rate and direction of technological change, and still others have focused on the regulatory burden facing small business. None of these measures fully captures one of regulation's most important consequences—its tendency to reduce the ability of the economy to adjust efficiently and swiftly to change.

Regulation's tendency to produce rigidity has sometimes been directly observable. In the past, for example, the Interstate Commerce Commission severely restricted common carrier trucking firms trying to choose the most efficient routes for their trucks. The fuel-adjustment charges still permitted by State regulatory agencies have reduced the interest of electric utilities in making fuel-saving investments, while the Federal regulations that rigidly segmented both the telecommunications and financial industries helped thwart innovations that would have improved productivity.

In other situations, however, the way in which regulation reduces flexibility is less obvious but nonetheless real. Some legislation, for example, prevents regulators from considering—much less balancing—competing national goals in establishing regulatory priorities. There are Federal statutes that prescribe the specific dates at which compliance with regulations must be achieved, and some statutes even specify compliance methods. Furthermore, the compartmentalizing

ing of regulatory functions often prevents the different agencies responsible for regulating different aspects of a given industry's performance from developing mutually consistent regulatory strategies. Once regulations are issued, they are seldom given a fresh look to see if they should be altered in the light of new knowledge or new conditions. Each of these facets of regulation has made our economic system less flexible. During the coming decade, however, the need to increase the economy's adaptability and flexibility will grow. Regulatory reform must play an important role in meeting this need.

THE ROLE OF "DEREGULATION"

In several industries—railroads, trucking, airlines, energy, telecommunications, banking—where the existing regulatory structures have largely outlived their usefulness, this Administration has achieved significant reform. Regulatory bodies like the Interstate Commerce Commission (ICC), the Civil Aeronautics Board (CAB), and the Federal Communications Commission (FCC), have acted administratively to reduce the burden of regulation where their statutes allowed them to do so, and new legislation has carried the process even further. Since the passage of the Airline Deregulation Act of 1978, Congress has also substantially deregulated common carrier trucking, interstate movers of household goods, railroads, and financial institutions. Meanwhile, the phased decontrol of natural gas and domestic crude oil prices continued to provide a powerful spur to energy conservation and to the exploration and development of new domestic sources of oil and natural gas. By the last quarter of 1980 an estimated 62 percent of all domestically produced crude oil was free of controls.

Transitions to Deregulation

As regulatory structures have been dismantled, the importance of properly designing the regulatory transition—the period during which an industry moves toward deregulation—has become more evident. Changing the "rules of the game" can cause serious dislocations in a previously regulated industry, and these dislocations must be taken into account. Users of the industry's services have made investments on the basis of the prices regulation has produced. Even if these price signals were in some sense "wrong," these investments cannot easily be undone. Similarly, workers and stockholders in the industry adapted their behavior to the realities of a regulated environment long ago, and changes in the industry's regulatory structure will affect their earnings.

Legislative debates have been dominated by the desire to cushion those with a stake in the existing system—customers, workers, and shareholders alike—from the shock of deregulation. For the most

part, the interests of these parties have been protected. Requirements for substitute service, provisions for notice of intention to suspend service, and provisions to protect the economic position of workers have generally been written into deregulation legislation. Unfortunately, much less care has been taken to make the course of deregulation sufficiently flexible to withstand the shock of sharp changes in the external environment.

The best example of this is the deregulation strategy chosen for natural gas. The decontrol schedule adopted in the Natural Gas Policy Act of 1978 will allow the price of "new" natural gas to gradually move up to the equivalent of \$15 for a barrel of oil (in 1978 dollars) by 1985, a level thought at the time to be more than adequate to permit a smooth transition to uncontrolled prices. By the end of 1980, however, the world price of oil (in 1978 dollars) had already reached \$28.50 per barrel. By 1985, oil prices will probably be more than double the level anticipated when the natural gas decontrol legislation was enacted. Thus, there will still be a large gap between the controlled price of "new" gas and the price of "decontrolled" gas.

There will then be an obvious temptation to delay complete decontrol in the hope of minimizing the shock that would occur if this price gap was closed in one step. But delay would be unwise. A better solution would be to reconsider the decontrol schedule soon for the purpose of making the necessary alterations in the decontrol path. The previous strategy of preventing windfall profits by ensuring a slow transition to decontrol will probably have to be abandoned in favor of a strategy which deals directly with the windfall issue.

The sharp increase in world energy prices has also placed strains on the transition toward deregulation in other industries, particularly airlines and railroads. The increase in energy prices has created the inaccurate perception that the principal promise of deregulation of the airlines—lower fares—was illusory. As discussed in last year's *Report*, however, only the productivity improvements permitted by deregulation prevented the sharp rise in energy prices from resulting in even larger increases in unit costs and thus in still higher air fares.

Higher energy prices have also made service to smaller communities by large aircraft an even less attractive financial proposition than it was earlier. However, the increased flexibility permitted by deregulation has helped to preserve air service to smaller communities by making it easier to substitute commuter carriers. Had this flexibility been unavailable, the short-run consequences would have been an enormous increase in Federal subsidies to the airlines, followed by the termination of service to many smaller communities.

With the increased fare and route flexibility permitted by deregulation, the airline industry has been weathering the most recent reces-

sion relatively well. Although substantial losses are being experienced by many carriers, most analysts consider the general condition of the industry to be sound. Most importantly, substantial investment in more fuel-efficient aircraft is continuing.

Rising energy prices have caused a different problem for railroad deregulation. Federal legislation enacted in 1976 provided the railroads with increased rate flexibility, but this initial dose of "deregulation" proved inadequate. In the meantime, the booming demand for coal prompted the railroads to raise coal-hauling rates sharply. These higher rates reflect the need to generate sufficient revenues to finance large investments in additional coal-hauling capacity, but they may also reflect some exercise of monopoly power. In any case, the rapid increase in coal-hauling rates, and the fear of even more rapid increases if the ICC controls were lifted, caused opponents of further deregulation to press for continuing ICC surveillance of coal-hauling and other bulk commodity rates. A compromise was reached that permitted a relaxation of the ICC's rate-approval authority on a pre-arranged schedule. The railroads have been given significant freedom to alter rates to meet shifting market conditions, while rail users have been given some protection against abuse of this freedom. The result should be better service and the substitution of coal for oil where lower total coal costs (including the cost of transportation) warrant.

Unexpectedly sharp increases in energy prices are not the only factor that has complicated regulatory transitions. Any unforeseen alteration in economic conditions can produce tensions. For example, the unprecedented swings in interest rates that occurred in 1980 placed additional strains on the already complex deregulation process of eliminating statutory differences between the various types of financial institutions.

This discussion leads to one conclusion. Inflexible transition paths are likely to encounter problems, particularly if the period preceding deregulation is stretched out to protect the economic positions of workers, shareholders, or consumers. Flexible transition paths, on the other hand, can allow industries to weather even large unanticipated shocks by permitting innovation. Transition paths should therefore be made as flexible as possible. Although the political difficulties of doing so should not be underestimated, it seems preferable to dismantle the regulatory barriers to efficient pricing relatively quickly and to take separate action to provide compensation for capital losses or to prevent windfall gains, if necessary.

EFFORTS TO IMPROVE THE PROCESS OF SOCIAL REGULATION

While much of the economic regulation placed on the statute books over the years has been eliminated or substantially reduced,

Federal regulations designed to protect the natural environment and the health and safety of both workers and consumers are necessary, and will remain so. The unaided market has not produced socially acceptable levels of pollution or worker exposure to hazardous conditions, and there is little evidence that it will.

But Federal regulation designed to protect the environment and the health and safety of both workers and consumers has not always produced the hoped-for results. The challenge to those who would reform these regulations is to design regulatory systems which intrude only to the extent required to achieve their goals and which use enforcement techniques that are appropriate, flexible, and efficient. Means must also be found to assure that the regulatory goals themselves reflect a proper balancing of national priorities. This may require new oversight methods or new regulatory tools.

Oversight Activities and Institutions

This Administration has utilized a number of methods to supervise the regulatory process. By Executive order, any executive agency proposing a major new regulation must develop an analysis of the expected economic consequences of its preferred alternative and of other possible approaches. Although this requirement only applies to a relatively small number of the regulations issued by the Federal Government each year, it has helped to upgrade the entire structure of regulatory decisionmaking. Many agencies now estimate the costs and benefits of all proposed regulations, even though these estimates are not always made public.

The regulatory analyses prepared by the agencies are subjected to independent review and comment by two institutions: the Regulatory Analysis Review Group (RARG) and the Council on Wage and Price Stability (CWPS). The RARG, an interagency body chaired by the Council of Economic Advisers, is composed principally of representatives from the executive branch agencies with regulatory responsibilities. It reviews approximately 10 regulations per year, concentrating on those that may impose especially large costs or that promise to be precedent setting. CWPS reviews approximately 50 regulations per year and is the only Executive Office unit having explicit statutory authority to review and comment on the proposed regulations of the independent regulatory agencies. This ability to provide credible estimates of the costs and benefits of proposed regulations, to suggest alternatives that might not ordinarily be suggested during the course of a rulemaking, and to serve as a source of quality control over agency analytical activities has proved crucial to effective regulatory oversight.

Whenever a RARG report has been filed, and in a small number of additional executive branch rulemakings, the Council of Economic

Advisers and other Presidential advisers have discussed the regulation with the agency prior to its issuance but after the period for public comment has ended. The purpose has been to assure the President that the agency head, in making the final decision, has considered the full range of alternatives allowed by statute and has taken cost-effectiveness criteria into account.

The task of following the development of important regulations has been made far easier by another innovation, the *Regulatory Calendar*. This list of important forthcoming regulations has become indispensable to understanding the cumulative impact of regulation on the economy. The Regulatory Council, which publishes the *Calendar*, has increased the amount of crosscutting analysis in it and is also developing industry-specific calendars. The first of these will catalog all Federal activities intended to affect the manufacture, sale, or use of automobiles. Through the use of the *Calendar*, the Council also seeks to identify overlapping regulations and tries to improve coordination between agencies where overlap is inevitable.

In addition to these regulatory oversight activities, there have been special reviews of all of the significant regulations affecting a few major industries. The most widely publicized of these were studies of the steel and auto industries conducted, respectively, by the Environmental Subcommittee of the Steel Tripartite Committee and by an interagency committee under the leadership of the Secretary of Transportation. Another is the review of important regulations affecting the nonferrous metals industry, announced by the Regulatory Council in October. Special reviews of this kind are likely to become more common in the years ahead.

Further Improvements in Regulatory Oversight Activities

The oversight practices described above have been central to this Administration's effort to develop new techniques in an area where the proper relationship between centralized oversight and agency decisionmaking is unclear and where analytical techniques require further improvement. Both the relationship and the analytical tools will be refined in the future.

Formal consideration of the anticipated costs of any regulation is an obvious necessity. Our national resources are not infinite. There must be some determination of whether the anticipated costs are within our means and our willingness to pay. Moreover, it is clearly desirable to maximize the benefits of any given level of regulation.

Although the preceding statements may seem elementary, consideration of the anticipated costs of a regulation is sometimes prohibited by statute. The Clean Air Act, for example, has recently been interpreted in court as prohibiting the Environmental Protection

Agency (EPA) from considering prospective costs in setting ambient air quality standards.

Even when consideration of costs is permitted or required by statute, agencies and courts must still decide whether this has been done in an appropriate manner. Agency procedures and court opinions on this subject vary. There is no universal test of economic feasibility and no agreed-upon "best" relationship between the economic costs of a proposed regulation and its expected benefits.

For these reasons, any sustained effort to ensure formal consideration of costs in regulatory decisions must involve the Congress, the courts, the White House, and the agencies charged with implementing regulatory statutes. Without such broad involvement, the matter will only be resolved on a case-by-case basis over many years. That slow process would provide no guarantee of uniformity, but it might well produce a regulatory paralysis arising from delay and uncertainty.

One suggested device for reconciling regulatory priorities within and between programs is the "regulatory budget." Most of its proponents envision this device as analogous to the Federal fiscal budget, with specific amounts of "permissible regulatory expenditures" assigned to each program and each agency. Some even envision a process of formal congressional authorization.

Although economists have made considerable progress in estimating the direct costs of complying with regulation, it is not likely that the techniques for a full-scale regulatory budget will exist soon. But it is feasible—and necessary—to incorporate budgetary principles, especially the establishment of priorities, into regulatory programs. This has been the aim of the Administration's regulatory oversight activities.

EFFORTS AT "SMARTER" REGULATION

With the direct encouragement of the President and the Regulatory Council, regulatory agencies have been experimenting with different ways to reduce the cost burden of regulation.

A good example is EPA's "bubble concept." This concept is based on the fact that it is often possible to reduce emissions of a given pollutant from one source far less expensively than from another source. Thus, instead of compelling each source to meet a standard, EPA figuratively places a "bubble" over an area (a large industrial plant, or, in some cases, an even larger geographic area) and lets private decisionmakers decide how to meet the standard for the area at the lowest cost. EPA initially intended to apply the concept quite narrowly, but during 1980 it gradually found ways to broaden its application. Means were found to eliminate many time-consuming procedures. The ability to develop acceptable "bubbles" for sulfur oxides

and particulates was demonstrated. Finally, and perhaps most importantly, a solution to a problem once thought to be insurmountable—namely, how to permit the concept to be applied in areas of the country not already meeting ambient air quality standards—appeared to be in sight. As the year came to an end, numerous “bubbles” were in the final stages of design and approval.

In some situations where the bubble concept is applied the cost savings will approach 60 percent. Furthermore, the concept so increases engineering flexibility that it offers the prospect of sharply reduced emissions in some cases.

Experimentation with a second regulatory innovation—the use of marketable permits—is just beginning. EPA recently suggested an overall limit on fluorocarbon production (and, hence, fluorocarbon emissions), combined with the creation of a market for buying and selling emission rights. While this approach promises substantial savings in the cost of reducing emissions, it transfers income from fluorocarbon users and producers to the government. If ways can be found to deal with the income transfer issues, and certain other technical difficulties overcome, the use of such a strategy would permit the continued use of fluorocarbons in those products that consumers value most while eliminating the need for administrative agency determinations of “essential” and “nonessential” uses. It will also stimulate the development of products that make more efficient use of these chemicals.

A third kind of effort at “smarter” regulation is the attempt to tailor regulations to the organization being regulated. The burden of compliance (especially the paperwork burden) often falls disproportionately on small businesses, some local governments, and certain nonprofit organizations. While a blanket exemption of small entities from regulation would not be feasible, it is often possible to reduce their regulatory burden. This approach was incorporated into statute by the Regulatory Flexibility Act of 1980, which requires the Federal Government to estimate the costs of new regulations for small organizations and to review its existing regulations to see whether the burden could be reduced.

Another way of improving the regulatory process is to examine existing regulations in a systematic way and eliminate those that are outmoded or unnecessary. On the basis of such a review, the Occupational Safety and Health Administration (OSHA) has eliminated nearly one thousand regulations during the past 4 years. And in September the Department of Housing and Urban Development (HUD) proposed to eliminate significant portions of its Minimum Property Standards, a large body of regulations going back almost 40 years. These regulations had been originally designed to ensure, among

other things, that federally assisted housing is safe and sanitary, and that federally guaranteed mortgages are marketable. HUD's review of the entire set of regulations was prompted by its belief that the private market now adequately performs some of these functions.

Still other alternatives to "command-and-control" regulation are possible. In choosing among alternatives, policymakers should seek the least intrusive ways of achieving regulatory goals. As a matter of course, regulators should look for techniques closely matched to the marketplace failure which was the original justification for regulatory intervention. Resort to a command-and-control solution should be the last step considered, not the first or second.

FINANCIAL MARKETS ADAPTING TO CHANGE

The financial markets have proved remarkably adaptable to changing economic conditions over the past two decades. In general, the markets' adaptations have occurred despite a slow response on the part of legislators and regulatory agencies.

In the mid-1960s there were many restrictions on depository institutions, including the following:

- limitation of the right to offer checking accounts to commercial banks;
- prohibition of interest payments on checking account balances;
- interest rate ceilings on savings accounts and other deposits in commercial banks and thrift institutions, with thrifts permitted to pay a differential of as much as three-fourths of 1 percent more on accounts of similar maturity;
- ceilings on the maximum interest rate that could be charged for loans;
- limitations on the types of assets that could be held; and
- geographic limitations on the establishment of branch offices and on the acquisition of other institutions.

These restrictions—motivated by such concerns as maintaining a sound financial system and a sufficient flow of funds for home mortgages—helped sustain the compartmentalization of depository institutions, both by function and by geographic area. Commercial banks provided "full service" banking to households and businesses, while thrift institutions were the principal repository for household savings and the dominant source of funds for residential mortgages.

This rigidly segmented system worked tolerably well from the 1940s through the mid-1960s. Market interest rates generally did not rise much above the regulatory ceilings on interest rates on deposits,

and most depository institutions were able to maintain a general degree of customer loyalty while still competing for deposit and loan business.

ADAPTING TO RISING INTEREST RATES

Since the mid-1960s, however, sharp swings in market interest rates and a general upward ratcheting of the interest rate cycle due to inflation have induced sweeping changes in the financial markets. Ceilings on deposit interest rates lagged behind rising market interest rates, creating gaps between the yields from deposits with regulated interest rates and the yields available on instruments with unregulated interest rates. Depository institutions then found it difficult to attract enough funds in regulated deposit markets to sustain their dominance in the lending markets. Moreover, member banks of the Federal Reserve System were further disadvantaged because they had to maintain a portion of their deposits as reserves in noninterest bearing balances, and the burden of these reserve requirements grew as interest rates rose.

Throughout the late 1960s and the 1970s, banks and thrifts sought to hold their competitive position by finding ways to attract funds less restricted by government regulations. For example, they developed a mechanism to sell U.S. Government securities to large corporate customers, agreeing to repurchase them later. Because this instrument (called a "repurchase agreement") was not subject to interest rate ceilings—and, for member banks, bore no reserve requirement—an institution could offer its corporate customers a competitive rate on short-term balances. By 1980, repurchase agreements outstanding at commercial banks had grown in value to roughly \$30 billion. In the early 1970s some State-chartered thrift institutions in Massachusetts and New Hampshire found that they could legally offer Negotiable Order of Withdrawal (NOW) accounts, which are similar to demand deposit (checking) accounts. With NOWs, which also can earn interest, the thrifts began to compete with commercial banks for transactions balances. Meanwhile, many commercial banks gave up their membership in the Federal Reserve in order to avoid the burden of its reserve requirements.

Despite these actions, banks and thrifts still were unable to provide a fully competitive range of financial services. Nondepository institutions, less burdened by regulation, found the banking market profitable as they began issuing deposit-like instruments and offering bank-like services. Money-market mutual funds, for example, were able to offer small savers substantial liquidity while offering a yield competitive with market interest rates. Many of these funds allow "deposits" (uninsured equity interests, called shares) to be maintained in almost any amount, and most of them offer limited check-

ing services. Money-market mutual funds did not exist until 1971, but by August 1980 they had grown in value to over \$80 billion.

Corporate borrowers found it cheaper to bypass their traditional lending relationships with commercial banks and increased their reliance on nonbank sources of funds like the commercial paper market, where corporations sell direct short-term liabilities. The issuance of commercial paper by nonfinancial firms grew from 4 percent of the total short-term debt of business firms in 1972 to 7 percent in 1979. Meanwhile, foreign banks, which were not burdened by Federal Reserve requirements and which had well-developed foreign sources of funds, also began moving into U.S. markets, especially business lending. By capitalizing on the expansion of international trade and by pricing their loans aggressively, they increased their share of U.S. business loans from 4 percent in 1972 to 9 percent in 1979.

U.S. banks have tried to keep their share of business loans by reducing their interest rates on loans to corporations with access to such alternative sources of funds. While the so-called prime rate is still the lowest rate offered to good customers lacking these alternatives, loans made at rates less than the prime rate are now commonplace. Nevertheless, the share of total short-term business debt held by domestic commercial banks shrank from 86 percent in 1972 to 60 percent in 1979.

Even as they sought innovative ways to bypass the regulatory structure and to maintain their markets, some depository institutions urged regulatory agencies to loosen their restrictions. The call for deregulation was less than unanimous, however, since many institutions believed that the regulatory structure still protected their profitable markets from encroachment by competitors. Nevertheless, experiments in deregulation were conducted by both Federal and State financial regulators in the 1970s (Table 11). In the early 1970s, for example, interest rate ceilings on large time deposits (\$100,000 or more) were removed, in part to permit banks to meet the strong demand for bank credit that developed when the failure of the Penn Central temporarily destabilized the commercial paper market. This action provided banks and thrift institutions with new access to the open market, and by the end of 1980 they held more than \$250 billion in such deposits. More recent regulatory changes have allowed banks and thrifts to compete for the funds of smaller savers by issuing 6-month money-market certificates (MMCs) and 2½-year small saver certificates (SSCs). These instruments, whose interest rate ceilings are adjusted frequently to keep pace with market interest rates, had attracted roughly \$475 billion to banks and thrift institutions by the end of 1980.

TABLE 11.—*Selected financial regulatory changes, 1970–80*

Date	Change
June 1970.....	Regulation Q ceilings on time deposits of \$100,000 or more with maturities of 30–89 days suspended.
September 1970.....	Federally chartered savings and loan associations permitted to make preauthorized nonnegotiable transfers from savings accounts for household-related expenditures.
June 1972.....	State-chartered mutual savings banks in Massachusetts began offering NOW accounts.
May 1973.....	Regulation Q ceilings on time deposits of \$100,000 or more with maturities exceeding 90 days suspended.
January 1974.....	All depository institutions in Massachusetts and New Hampshire authorized by Congress to offer NOW accounts.
August 1974.....	Selected Federal credit unions permitted to issue credit union share drafts, check-like instruments payable through a commercial bank.
November 1974.....	Commercial banks permitted to offer savings accounts to State and local government units.
April 1975.....	Member banks authorized by the Federal Reserve to make transfers from a customer's savings account to a demand deposit account upon telephone order from the customer.
November 1975.....	Commercial banks authorized to offer savings accounts to businesses.
February 1976.....	Congress extended NOW accounts to all New England states.
May 1976.....	New York permitted checking accounts at State-chartered mutual savings banks and savings and loans.
June 1978.....	Six-month money market certificates (MMCs) introduced at banks and thrifts.
October 1978.....	Congress extended NOW account authority to New York State.
November 1978.....	Commercial banks and mutual savings banks authorized to offer automatic transfer (ATS) from a savings account to a checking account or other type of transactions account.
July 1979.....	A floating ceiling for time deposits at banks and thrifts with a maturity of 4 years or more established.
January 1980.....	The floating ceiling extended to time deposits with a maturity of 2½ years or more.
March 1980.....	The Depository Institutions Deregulation and Monetary Control Act of 1980 enacted.

ADAPTING TO GREATER RATE VARIABILITY

While the depository institutions were adapting to greater competition and the high interest rate environment, they also faced the problem of growing interest rate risk. Increased rate variability and the upward ratcheting of interest rates have been especially troublesome to these institutions because their liabilities have traditionally matured more quickly than their assets. Moreover, while the new types of variable-rate instruments have allowed them to keep many of their depositors, these instruments have facilitated a shift of funds from stable, low-interest savings accounts to more variable and higher interest liabilities. Consequently, as market interest rates rise, so do the rates they must pay on their liabilities. When this happens, banks and thrifts lose income because the yield on their longer-term assets does not rise commensurately.

Depository institutions have responded to this problem by shortening the maturities of their loans and by offering loans whose interest rates are frequently adjusted over the course of the loan to prevailing market rates. In 1980, for example, almost 70 percent of term business loans extended by commercial banks had floating interest rates. Similarly, banks and thrift institutions have introduced new mortgage instruments—including the variable-rate mortgage and the rollover-rate mortgage—whose rates are adjusted every year or so—in stark contrast to the traditional 30-year, fixed-rate mortgage. The thrift institutions also sought to remove the legislative restrictions on their

holdings of consumer and business loans, which have shorter maturities than mortgages.

PRESSURES FOR COMPREHENSIVE LEGISLATION

In the late 1970s there was a growing realization throughout the financial community that despite piecemeal modernization, regulations affecting depository institutions needed more sweeping reform. The regulatory structure no longer was satisfying its original objectives. Instead, it was creating inefficiencies and inequities. It even diminished the effectiveness of monetary policy as banks left the Federal Reserve System. Pressures from various sources finally resulted in a compromise bank reform bill, the Depository Institutions Deregulation and Monetary Control Act of 1980.

Under this law, interest rate ceilings on time savings deposits will be phased out over 6 years. Moreover, beginning December 31, 1980, all depository institutions were allowed to issue NOW accounts to individuals and nonprofit organizations. In addition, uniform reserve requirements will apply to all depository institutions by the end of an 8-year transition period. As a result, the burden of reserve requirements will be spread more equitably among all institutions, and the Federal Reserve's control over the deposit base will be improved. The law also expands the asset flexibility of savings and loan associations, which will now be allowed to place up to 20 percent of their assets in consumer loans, while mutual savings banks will be allowed to invest up to 5 percent of their assets in business loans. Finally, the act repealed State usury ceilings on mortgage interest rates and relaxed State usury ceilings on consumer and business loan interest rates. These ceilings had seriously depressed such lending in certain States at various times during the past decade.

THE FINANCIAL STRUCTURE OF THE 1980s: BENEFITS, RISKS, AND PUBLIC POLICY

Today's financial environment is very different from the placid conditions of two decades ago, and it is likely never to revert to that earlier state. Changes in the financial markets have had significant impacts on the behavior of depositors, borrowers, and depository institutions who—along with the financial regulatory agencies—will face further challenges in coming years.

Depositors

Higher and more volatile interest rates have increased depositor awareness of the importance of actively managing their financial assets. Moreover, the proliferation of savings alternatives has provided depositors with access to new markets where they can receive a higher average return on their savings than previously. Even if inter-

est rates return to lower levels, it is likely that the market for deposits will remain more competitive and that savers will continue to be more interest-sensitive. This should work to encourage greater saving at a time when an increase in the Nation's rate of saving and investment would be welcome.

While savers as a whole benefit from these reforms, however, not all individual savers will achieve a higher overall rate of return. In many cases the depository institutions have offset part of the increase in interest which they must pay for deposit funds by raising the prices of their checking and other financial services. Depositors who maintain high balances but use relatively few services will benefit considerably, while depositors who maintain relatively low balances and who benefited in earlier years from free or low-cost services may find these new practices to their disadvantage.

Borrowers

Many of the innovations adopted by depository institutions to make loan rates vary in accordance with changes in market rates have shifted the risk of interest rate variation to borrowers. As finance costs have risen and become more variable, financial management has assumed more prominence as a corporate management function. In the past decade, corporations have significantly improved their cash management and have increased their use of alternative sources of funding, such as commercial paper. Meanwhile, corporations have relied much more heavily on short-term debt to finance their activities and have shortened the maturities of their bond issues. Some observers have expressed concern that this tendency toward shorter maturities of liabilities could lead corporations to reduce their commitments to long-lived capital investments in plant and equipment, which would limit the Nation's ability to improve productivity. It should be recognized, however, that corporations are at least partially protected against inflation-induced changes in interest costs if borrowed funds are invested in real capital. That is, if changes in the expected rate of inflation account for fluctuations in interest rates, the expected nominal revenue from capital investment is likely to shift in the same direction as nominal borrowing costs.

If corporations want further protection from changes in interest rates, they can pay to get it. They might, for example, make use of the financial futures markets which have developed quite rapidly in recent years. The total volume of 3-month Treasury bill contracts on the financial futures markets rose from \$100 billion in 1976 to over \$2.7 trillion in the first 10 months of 1980.

One specific borrowing sector that has lost much of its protected status as a result of the new competitive environment is housing. The thrift institutions no longer enjoy many of the special advantages

they once had and thus cannot continue to channel funds to housing at artificially low interest rates. Although changing competitive conditions may mean a somewhat higher and more variable cost of funds for thrifts, the new regulatory environment should help to stabilize their deposit flows and hence the supply of mortgage funds. Furthermore, the Federal Government has supported the expansion of secondary mortgage markets to attract additional capital into housing. The secondary market institutions—the Federal National Mortgage Association (FNMA), the Federal Home Loan Mortgage Corporation (FHLMC), and the Government National Mortgage Association (GNMA)—have expanded the scope and volume of their activities. Market acceptance of new financial instruments like the mortgage-backed securities issued by these institutions has grown, thus cementing more firmly the link between capital markets and mortgage credit. GNMA securities alone have increased to more than \$90 billion in the past 3 years. While these developments in financial markets should tend to increase the variability of mortgage interest rates, they should also tend to reduce the cyclical swings in mortgage money availability. It is too early to tell whether these changes will mean more or less cyclical variation in home sales and residential construction.

Depository Institutions

Banks and thrift institutions now operate in a much more competitive environment, and the risks associated with interest rate swings are much greater. Partially offsetting these developments are the broader range of financial instruments they can offer and their expanded lending powers.

But legal and regulatory limitations still exist that, if liberalized, would allow further adjustment to new financial conditions. Current law, for example, restricts banks and thrifts from expanding into natural market areas. A recent Administration study concluded that a liberalization of Federal restrictions on geographic expansion by commercial banks would increase banking competition in local markets and result in more and lower priced services. Some tentative steps toward the removal of the barriers to geographic expansion likely will occur in coming years. There may also be a further loosening of the asset restrictions on thrifts and commercial banks—for instance, allowing thrift institutions more leeway to make business loans or allowing both types of depository institutions broader powers to hold financial futures contracts and stocks, and to underwrite bond issues and insurance.

Even with changes like these, however, some institutions will find it difficult to adjust. Since the government shaped the financial world that existed when these institutions were founded, it now faces the

task of helping them evolve in an orderly manner. Success will depend in part on general economic conditions, and as these conditions change, the regulators must be prepared to react.

A case in point is the gradual removal in the last few years of ceilings on deposit interest rates. It was initially anticipated that relaxation of the ceilings, combined with an eventual liberalization of the types of assets that could be held, would allow thrift institutions to gradually correct imbalances in their portfolio maturities and thus limit their exposure to rising interest rates. But quick acceptance of floating-rate certificates by small savers at a time of rapidly rising interest rates has raised the interest expense of these institutions much faster than they have been able to increase the revenues on their loans. While most of the thrifts will achieve a better asset/liability balance in the long run, the current squeeze on profits resulting from rapidly rising market interest rates threatens some of them with serious financial difficulties.

One way to deal with this problem would be to subsidize endangered institutions, perhaps by buying their low-yield, long-maturity assets (mortgages) at above-market prices. This would involve a substantial budgetary outlay, however. Another option would be to permit the troubled institutions to fail outright, but this approach would risk destabilizing the financial markets and could result in significant losses to uninsured depositors and the Federal insurance organizations.

Neither of these approaches responds directly to the inefficiencies created by remaining regulatory practices which continue to compartmentalize depository institutions. Thus, a third and preferred alternative would be to remove restrictions that now prevent efficient consolidation among financial firms. This would require further deregulation to allow mergers across State lines and between different types of institutions, since these restrictions remain a major obstacle to the efficient reorganization of financial institutions. As a result of these changes, the weakest institutions would find more opportunities for mergers. While this would not solve the problems of all endangered institutions, it would allow a more stable reordering of the financial sector where appropriate while minimizing the budgetary cost and sharply reducing the risk to financial markets of policies aimed at the remaining problem.

Conclusions

During the last two decades the pace of innovation in the financial markets has been quite rapid as depositors, borrowers, and financial institutions have sought new ways to adapt to high and variable interest rates. Unfortunately, a lag in both legislation and financial regulation meant that a considerable amount of innovation was applied to

finding ways around outdated regulatory barriers. But changes in the regulatory structure in the seventies, culminating with the Depository Institutions Deregulation and Monetary Control Act of 1980, have aided greatly in making regulation compatible with the new financial environment. The challenge for financial regulatory policy during the 1980s will be to rationalize regulation even further to achieve the appropriate balance between unnecessary restraints on the market and the regulatory goals of preserving the safety and soundness of the financial system and providing the tools for an effective monetary policy.

THE ALTERED ROLE OF AGRICULTURE

For decades, U.S. agriculture was a sector with chronic excess capacity and low returns. Productivity increases that exceeded growth in demand resulted in declining real food prices for more than a quarter of a century.

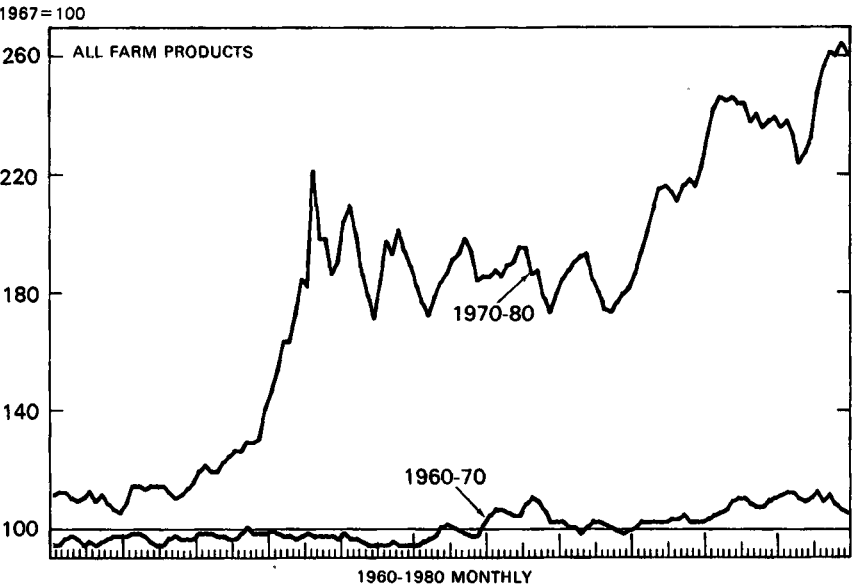
The decade of the seventies saw virtually all of these circumstances change. Farm and food prices increased and became more volatile (Charts 5 and 6). A modest shortfall in the world crop and major trade policy changes in the United States and the Soviet Union contributed to the initial price shock in 1972, and the growing worldwide demand for food helped sustain demand pressures from 1973 on. The large surpluses of grain purchased by the Federal Government in earlier years to increase farm income had been sold by 1973 and, by 1974, for the first time in more than two decades, the cropland base was nearly fully employed. It has remained that way since then. To produce more from the available land, the use of industrial inputs increased. Chemical use, for example, increased nearly 37 percent from 1970 to 1980.

The cash receipts of farmers increased dramatically after 1972, but production cost increases eroded much of the apparent gain in purchasing power. Prices paid for production inputs in 1980 were more than 2½ times their 1970 levels. The price of agricultural real estate increased an average of 13 percent per year, nearly twice the average annual inflation rate for the decade. Still, the average per capita disposable income of all farmers during the 1970s from both farm and nonfarm sources was nearly 90 percent of that earned by the nonfarm population, up sharply from the 65 percent average figure of the 1960s.

Meanwhile, the rapid exodus of labor from agriculture virtually stopped as the farm labor force stabilized at about four million persons. Not only was there a substantially smaller and more stable farm population, but there were substantially fewer farms, and a smaller

Chart 5

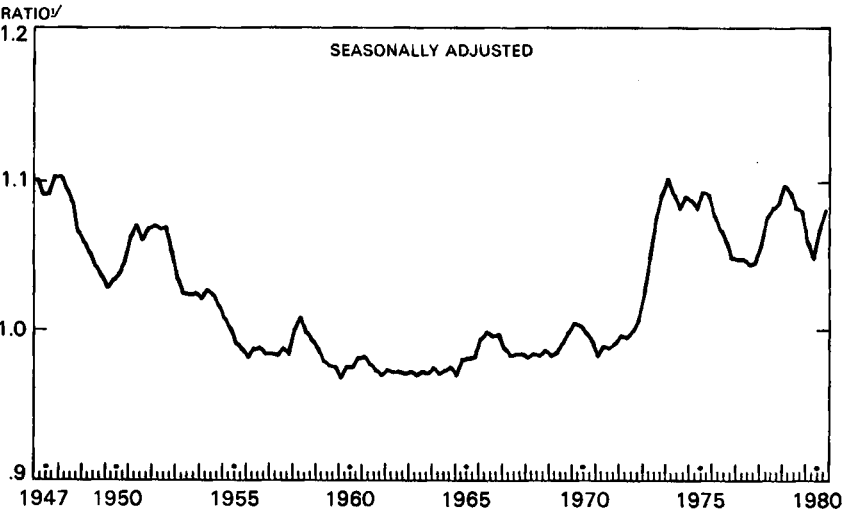
Prices Received by Farmers



SOURCE: DEPARTMENT OF AGRICULTURE.

Chart 6

Relative Food Prices



=RATIO OF IMPLICIT PRICE DEFLATOR FOR FOOD TO IMPLICIT PRICE DEFLATOR FOR ALL PERSONAL CONSUMPTION EXPENDITURES.

SOURCE: DEPARTMENT OF COMMERCE.

proportion of the existing farms produced most of the Nation's food and fiber. In 1940, when there were more than six million farms, the largest 2 percent accounted for about 25 percent of all sales. By 1980 less than half as many large farms accounted for nearly 40 percent of all sales.

EXPANDING AGRICULTURAL EXPORTS

Perhaps the most significant change in American agriculture during the seventies, however, was the huge expansion in exports. Grain exports tripled in volume, while the dollar value of all agricultural exports increased nearly sixfold. But this growth in value and volume came with increased volatility in prices and production.

The present competitive advantage of U.S. agriculture is impressive. In the 1960s, exports represented 14 percent of total farm cash receipts; in 1980, cash receipts from exports represented nearly 30 percent of the total (Table 12). To accommodate the increase in export volume, the amount of land devoted to the production of crops for export nearly doubled. Transport systems and storage facilities have been pushed to their limits at times. Nonetheless, agricultural exports have not increased their share of total U.S. exports. Since the end of World War II, agriculture's share of total exports has remained at approximately 20 percent.

TABLE 12.—*The role of agricultural exports, 1930-80*

[Calendar years]

Period	Agricultural exports		
	Value (millions of dollars) ¹	As percent of all exports	As percent of farm cash receipts
1930-39.....	785	30.6	10.5
1940-49.....	2,294	22.5	10.7
1950-59.....	3,593	22.3	11.4
1960-69.....	5,864	21.6	13.9
1970-79.....	19,668	20.5	22.1
1976.....	22,997	20.3	24.1
1977.....	23,636	19.9	24.2
1978.....	29,384	20.8	25.4
1979.....	34,745	19.5	26.2
1980 ²	40,500	19.3	29.1

¹ F.a.s. (free alongside ship) value.

² Estimates.

Sources: Department of Agriculture and Council of Economic Advisers.

The increased importance of exports, coupled with the disappearance of surplus grain stocks and nearly full use of the cropland base, has exposed U.S. farmers and consumers to an unaccustomed degree of instability in commodity prices. Part of this instability comes about because of unpredictable world weather, but much of it has been the result of our own policies and those of our trading partners.

Many nations have policies to shelter their economies from extreme fluctuations in commodity prices. The European Community, for example, maintains higher farm prices in member countries by varying duties on farm commodity imports and the subsidies on exports. These practices tend to make world commodity prices more variable by increasing the variability of European Community export and import levels. European food prices are therefore more stable than ours but are generally higher, with a resulting reduction in the European standard of living.

Centralized trading decisions by other grain exporters and by most of the grain-importing countries have also tended to increase the volatility of world grain prices. Canada and Australia, for example, routinely impose quantitative restrictions on grain exports when domestic price stability is threatened. Furthermore, an increasing proportion of exported grain is going to countries that do not allow the free movement of prices to allocate resources internally. The centrally planned and certain developing countries, for example, rely on the United States and other major exporters for marginal supplies, making "needed" purchases without much apparent regard for price. Taken together, the efforts by other countries to stabilize their domestic food prices and supplies have shifted the costs of increased price variability onto farmers and consumers in the United States.

Prices and income may vary at times as a result of international political considerations. The January 1980 ban on the sale of certain agricultural products to the Soviet Union originated from considerations other than the typical tug-of-war between consumer prices and farm income, namely, foreign policy considerations following the Soviet invasion of Afghanistan. The Administration was obviously aware of the potentially adverse economic effects of that sales suspension and took significant steps to minimize them.

Unpredictable actions of other countries can also impose price shocks on the United States. A unilateral reversal in agricultural policy by the Soviet Union or China or a deterioration in East/West relations would have major implications for the U.S. farm sector. Thus, the fact that our growing food trade is now affected by international political affairs is a source of added risk to private investors in the agricultural sector.

The need for stabilization mechanisms in this environment should be evident. Agricultural demand and supply are both quite inelastic in the short run. Small changes in either can lead to large changes in price. While such price movements serve the important economic purpose of allocating available supplies, they can also have disruptive consequences. Rising corn prices, for example, set in motion adjustments in the livestock sector that have implications for domestic meat

prices for years in the future, regardless of the size of succeeding corn harvests. The domestic livestock sector, in fact, is still making adjustments stemming from the very high grain prices of 1972-74.

Grain Reserves

Reserve stocks stand as the only real source of protection against inflationary rises in the price of food in market economies during periods of short supply. They also cushion farmers against declines in the prices of agricultural commodities during temporary periods of overproduction. If the flow of information and the credit markets were perfect, private agricultural stocks might be expected to provide the needed price stabilization. But the flow of information and the credit markets are not perfect. Moreover, private holders of agricultural commodities are unlikely or unable to take account of macro-economic effects when they make decisions on whether or not to store commodities.

The program of farmer-owned grain reserves implemented by the Administration in 1977 (discussed in the 1980 *Report*) has proved to be a popular, flexible, and efficient mechanism to cushion price shocks. The Administration's initial stock objective was achieved by early 1979, when more than 11 million tons of wheat and 20 million tons of feed grains had been placed in reserve. When prices then increased because of reports of a smaller-than-expected Soviet harvest, the stocks were released. By mid-October 1979 farmers had withdrawn over 40 percent of the wheat and sorghum and more than 25 percent of the corn in the reserve. When sales to the Soviet Union were halted in early 1980, stocks flowed back into the reserve and helped keep farm prices from falling as much as they would have without it. Those stocks are now available to help offset the adverse effects of the 1980 summer drought.

Clearly, grain prices and farm income over the past 4 years would have been more volatile without such a compensating mechanism. It is also probable that export earnings were increased because more grain was available for export during periods of high prices. In any case, the availability of large reserves allowed us to retain our export markets and enhance our reputation as a reliable supplier even in periods of short world supply and high prices. Moreover, the only non-recoverable taxpayer costs of this program have been payments for storage and interest costs on the Commodity Credit Corporation (CCC) loans extended to farmers when grain was placed in the reserve.

The Reduced Need for Subsidies

The improving economic health of the Nation's farmers suggests that subsidizing farm income is less essential today than it was in the

past. The growing importance of exports makes it more likely that the benefits of U.S. grain reserves will accrue disproportionately to foreign customers. Together, these observations suggest two things: first, that grain sold from the reserve should be priced high enough to cover not only the cost of grain production but, if possible, program costs as well; and second, that the incentives to place grain in reserve should be no greater than necessary to meet our objective of price stabilization. Present policy, including administrative procedures and legal authority, does not serve either of these objectives as well as it might.

Current law, for example, requires waiver of the interest that would normally be paid by farmers on CCC loans and taxpayer payment of the storage costs. Thus, if the grain is sold at a lower price than would be required to cover these carrying costs, export customers benefit because American taxpayers subsidize the storage of grain. But if grain from the reserve is sold at prices high enough to cover these costs, farmers receive a windfall profit that may be unnecessary to assure the accumulation of reserves that will accomplish the price stabilization objective.

By requiring farmers to pay the storage costs and the interest on the loans, the beneficiaries of the reserve (both U.S. and foreign customers) would be paying for the system's operation. Requiring farmers to pay such costs would, however, probably result in reserves too small to accomplish the price stabilization objective. To attract the desired stocks, farmers might be offered higher loans for grain entering the reserve. The most efficient way to acquire a reserve of a given size would be to require farmers to bid for the right to place grain into the reserve. Under such a plan, farmers offering to place grain in reserve at the lowest loan rates would be authorized entry.

The flexibility granted by the Agricultural Act of 1980, which authorizes higher-than-normal loan rates for grain entering the reserve, might be used to implement such a plan. Legislative changes would, however, be required to allow the farmer to pay storage and interest costs.

In addition to subsidizing the grain reserve, the Federal Government has subsidized the use of key agricultural inputs. Programs under which the Federal Government has shared with farmers the costs of soil conservation, land development, pest control, and the like, have been commonplace. As farm exports grow, so will the extent to which such subsidies transfer national wealth to export customers. To avoid unintended transfers, the resources committed to agriculture must be properly priced. This means, for example, that the price of exported grain should reflect the full costs of transporting it. Similarly, the Nation's limited natural resources, such as un-

derground water resources once thought virtually unlimited, should now be priced to more appropriately reflect their limited availability.

FUTURE CAUSES OF RISING FOOD PRICES

When food prices soared upward in 1973, many economists saw it as a temporary deviation from the longer-term trend, and the apparent return of surplus production in 1976-77 helped support this notion. But food prices did not fall to their earlier trend line (Chart 6). While exhibiting the same increase in variability as commodity prices, food prices remained high relative to other prices throughout the 1970s, and additional price increases are likely for at least the first half of the 1980s.

The Rising Demand for Output

Projected increases in exports and in the use of grain domestically for animal feed indicate sustained upward pressure on commodity prices for the next several years. Other economic forces will place still more pressure on agricultural resources, particularly cropland. Rising energy prices, for example, are increasing the demand for natural fibers, primarily cotton. High sugar prices and the expanding use of sugarcane for ethanol production in Latin America are expected to double the demand in the United States for corn as a sweetener by 1985.

But perhaps most important is current energy policy which encourages the production of alcohol fuels from corn. This policy implies the need for an additional 370 million bushels of corn and a 5 percent increase in corn cropland by the end of 1982. The ethanol produced from the corn would replace about 60,000 barrels of oil per day—about 1 percent of U.S. oil imports. Other things being equal, such an increase in demand would increase the season average price of corn about 10 percent. The high cost of producing ethanol and the higher corn price, even when offset by the value of the ethanol by-products and an increase in export earnings, would mean that the Nation was paying nearly twice the present world price for each barrel of foreign oil displaced. The benefits of the gasohol program may be substantial and difficult to quantify, but its costs are large and its pressures on cropland significant. Furthermore, given the incentives already authorized, the amount of corn required for gasohol could more than double by 1985.

Pressures on Farm Input Use

By itself, a growing demand for agricultural products would not necessarily mean rising real prices. Advances in crop yield and other productivity gains throughout much of the postwar period made it possible to increase production in line with steadily growing demand without bringing high-cost, marginal resources into use. But this is

unlikely to happen in the future in part because of energy. In 1975, when data first became available, energy-intensive inputs (excluding fertilizer) accounted for 23 percent of the variable cost of producing an acre of corn. Those same inputs accounted for 31 percent of the variable cost in 1980. Higher real prices for these inputs will be a disincentive to their use and intensify the pressure to use additional land and water resources. These resources are also more limited. In 1972, for example, more than 16 percent of the cropland base was being withheld from production by government policies. None is being withheld today. To raise production further, land will have to be diverted from other uses and developed for crop production. The cost of doing so will be reflected in higher agricultural prices.

Changes in policy, however, could help to ameliorate future increases in food prices. Certain land-use patterns remain fixed by acreage allotments. Fruit and vegetable growers sometimes restrict output or otherwise control marketing to enhance prices and then seek restrictive trade policies to protect those higher prices. Certain regulatory procedures now impose economic penalties on the use of technologies that would raise productivity in the food system. Such policies deny both producers and consumers the benefits of technological change. Finally, certain price support decisions continue to be statutorily dependent on movements in an outdated parity index that has little relation to product-specific costs of production. The dairy price support program is perhaps the best known example here. Such policies enhance the economic position of some farmers, while they perpetuate existing—but not necessarily efficient—patterns of resource use. Such inefficiency is particularly costly in a period of relative resource scarcity and limits agriculture's potential contribution to economic growth.

POLICY DIRECTIONS FOR THE 1980s

Significant progress has been made over the past 30 years in adjusting U.S. agricultural policies to a changing world. More importance has been placed on the allocative function that can be performed by prices, and there is significantly less direct government interference with producer decisionmaking.

This Administration's farm policies have contributed to the evolutionary process. The implementation of a farmer-owned grain reserve program stands out because of its flexibility and its success in moderating price fluctuations stemming from changes in production and consumption levels. Additionally, the recent formation of a government-owned food reserve increases the likelihood that food will be available to foreign nations during emergency situations, even when world prices are high and commercial supplies are limited. The 1980 passage of a statute permitting the creation of a partially subsidized,

comprehensive, actuarial crop insurance program means that there will be a more equitable sharing of natural disaster risk between farmers and taxpayers. Eventually this new program—which expands the private sector's role in insuring farmers against such risks—will replace the more limited free insurance that is now provided for certain farmers through the fully subsidized disaster payments program.

Future changes in agricultural policy must build on this foundation. In particular, attention must be given to the use of natural resources. Past agricultural policies have treated land and water as gifts of nature. The need for pricing them in ways that more appropriately reflect their true social value will intensify. Specific programs must be developed for this purpose; conservation of soil and pricing of other natural resources can no longer simply be by-products of programs to enhance farm income.

Taken together, these policy issues point to a broader reliance on market forces, but the critical importance of food to national security will dictate a continued role for government in determining agricultural policy. Finding new and more flexible ways to use resources more efficiently while guarding against price volatility will be the principal farm policy challenge of the 1980s.

TRENDS IN INDUSTRIAL AND LABOR MARKETS

The preceding sections described developments in energy, regulation, the financial markets, and agriculture that have put severe pressure on the economy's adaptive capabilities. Each case illustrated the need for policies that facilitate adaptation to future as well as current developments. These four areas are not unique, however. Throughout the economy, deep-seated trends are increasing the need for greater adaptability.

INDUSTRIAL CHANGE

One such trend is the elimination of previous competitive advantages in some sectors and the creation of new ones in others. In the case of automobiles, for example, competition on the basis of technological advances and fuel economy is replacing competition based on style and performance. Vehicles manufactured in large volume according to stringent quality standards and utilizing the latest technology are replacing vehicles whose style changed annually but whose technology evolved more slowly. The emergence of the so-called "world car," with its international sources of key components, is evidence that this remarkable change has not been limited to the United States.

Nor are these kinds of competitive pressures new. Similar pressures over the years have occurred in textiles, apparel, and footwear.

In each of these industries today, the profitable U.S. producers compete in ways very different from their predecessors, whether by manufacturing specialty fabrics, blue jeans, or canvas shoes.

What is new, however, are the widespread pressures for substantial adaptation due to recent changes in energy and capital markets. These pressures are also occurring at a time when the economy is growing slowly. In the past, growth has often served as a "shock absorber" to cushion change, but the slow pace of growth has made the problems of readjustment more painful. Furthermore, some of the industries experiencing intense change are large and highly visible regional employers. There is simply no easy way to absorb the closing of an integrated steel facility or an automobile plant that dominates its local labor market. Lastly, these pressures for job protection are occurring at a time when the changing composition of the labor force may be tending to reduce mobility.

CHANGING LABOR FORCE COMPOSITION

During the past decade, the number of people with jobs grew at record rates, and the average age and experience of workers fell. During the coming decade, the growth of the labor force will slow considerably, and the average worker will be older and more experienced.

Both of these changes result from two related demographic phenomena: the maturing of the baby-boom generation and the rise in female labor force participation rates. From the end of World War II until the beginning of the 1960s, the Nation experienced a sharp rise in the number of births which temporarily reversed the long-term decline in birth rates. This generation began entering the labor market in the 1960s and the influx of new workers continued during the 1970s. The percentage of the population aged 16 to 24 rose from 12.1 percent in 1960 to 15.8 percent in 1970 and 17.0 percent in 1979.

Female participation rates increased gradually during the baby-boom years. An even greater increase in the number of women workers has occurred in more recent years. The rate of participation in the labor force increased from 34 percent to 39 percent between 1950 and 1965; by 1980, more than 51 percent of the country's adult women were in the labor market.

The maturing of the baby-boom generation and the sharp rise in the number of working women meant that U.S. labor markets had to absorb record numbers of new and inexperienced workers. During the 1970s the civilian labor force increased at an average annual rate of 2.5 percent, compared to 1.1 percent during the 1950s and 1.7 percent during the 1960s. The influx of young workers, combined with an increase in the number of older workers retiring early, pro-

duced a decline in the median age of the labor force from 39 years in 1965 to 34 years in 1980.

As discussed in Chapter 1, the economy did remarkably well in providing jobs for these new workers. In fact, the unemployment rates for white youths and adult women have not increased relative to those of prime-age men. Unfortunately this success was not evenly spread across demographic groups. The high unemployment rate for young blacks, which has deteriorated considerably and is currently well above 30 percent, indicates serious shortcomings in labor markets or other social institutions. This unemployment problem has persisted in spite of substantial Federal efforts to improve the quality of primary and secondary education for minorities, to expand post-secondary training programs, and to provide on-the-job training in public sector jobs.

During the next decade the number of people reaching adulthood will continue to be larger than the number reaching retirement age, but the generation entering the work force will be considerably smaller than the cohort which began work in the 1960s and 1970s. Even if female labor force participation rates continue their rapid rise, the Bureau of Labor Statistics (BLS) projects that labor force growth will average only 1.3 percent per year during the 1980s.

The decrease in entrants into the labor force during the next decade should have several effects. First, the increasing average age of the labor force will tend to lower the aggregate unemployment rate. The rate was higher during the 1970s at least in part because the transition from school or home to a job takes time; young people and women entering the labor market may be counted as unemployed during that search period. In addition, as they try out different career possibilities, new workers tend to change jobs more often than experienced workers, often with spells of unemployment between jobs.

The transition to an older labor force will probably lead to some increase in productivity as the average level of experience rises. One estimate suggests that shifts in the age-sex composition toward groups with below-average experience reduced productivity growth by 0.4 percentage point per year between 1966 and 1973. Since then, the reduction has been about 0.2 percentage point per year. During the 1980s, changes in the age-sex ratio should raise productivity by 0.1 percentage point annually.

Demographic changes will also tend to raise productivity by making it easier to increase the capital-labor ratio. Even if the capital stock only grows at past rates during the 1980s, the amount of capital per worker will grow as the rate of growth in the number of workers falls. Moreover, the relative growth in the number of middle-aged

members of the population, who typically have higher rates of saving than either the young or the elderly, should increase the Nation's saving rate and facilitate growth in the capital stock.

But a third effect of the rising average age and experience of the labor force will be a decrease in flexibility. Shifts in the demand for labor by region, industry, and occupation are most easily met when young workers just entering adulthood are available to move to areas where the growing sectors of the economy are located. These younger workers are not tied to the skills gained from long experience in one job, they generally do not own homes, and their ties to communities are weaker. Further, young workers normally have more years over which to recoup the costs of acquiring new skills or moving to a new community.

Older experienced workers and individuals in two-earner families are often much less flexible in changing jobs, industries, occupations, or communities. If there is a decline in the demand for the type of labor they supply, they are less able and willing than younger workers to move or to abandon old skills or to learn new ones. Firms are less interested in absorbing the costs of training older workers for new careers. Therefore, although older workers are less likely to lose their jobs, if their jobs do disappear they are likely to have a harder time than young workers in finding a new job and are likely to be unemployed for a longer time. Thus, although total unemployment rates will tend to fall as the labor force ages, the percentage of workers unemployed for extended periods may rise.

Although U.S. labor markets may become less flexible in the future, we currently appear to be able to find new jobs for displaced workers more rapidly than several major European economies. The more rapid the adjustment to employment shocks, the lower will be the percentage of workers unemployed for extended periods. Table 13 presents the long-term unemployed as a percentage of the total labor force for the United States, Germany, France, and the United Kingdom. Although these percentages undoubtedly reflect international differences in definitions of employment and in stages of the business cycle, they do suggest that American workers suffer less long-term unemployment than their European counterparts.

However, the adjustment to new patterns of labor demand in the economy of the 1980s may be more difficult than it has been in the past, and government assistance may be necessary to soften the shocks of structural change while promoting flexibility. Such programs can be designed to move workers to jobs or jobs to workers. The former include retraining programs for the unemployed as well as relocation subsidies to encourage them to move from depressed areas to communities with excess demand for labor. The latter in-

clude government investments in local infrastructure and investment subsidies to encourage expanding firms to replace contracting ones. Whatever combination of policies is chosen, efforts to cushion the shocks of adjustment should not themselves discourage adaptation.

TABLE 13.—*Long-term unemployment as percent of labor force, 1973–80*

Year	United States	Germany	France	United Kingdom
1973.....	0.89	0.43	1.57	1.22
1974.....	1.00	0.94	1.66	1.11
1975.....	2.63	2.38	2.64	1.80
1976.....	2.41	2.40	3.06	2.73
1977.....	1.92	2.34	3.47	3.25
1978.....	1.34	2.25	3.72	3.40
1979.....	1.14	1.92	4.42	3.35
1980.....	1.71	(¹)	(¹)	(¹)

¹ Not available.

Note.—Long-term unemployment is defined as 15 weeks or longer for the United States, 14 weeks for the United Kingdom, and 3 months for France and Germany.

Source: Organization for Economic Cooperation and Development.

THE DILEMMA OF INDUSTRIAL POLICY

Chapter 1 of this *Report* and the preceding sections of this chapter describe an economy facing increased pressure to adjust to changing economic circumstances in a period of restrained growth. The increase in Federal involvement in areas previously considered to be the domain of private decisionmakers has also been detailed. The recognition that increased adjustment is needed and that the resources to smooth the path of this adjustment are limited, has led some to propose an explicit “industrial policy” to guide the broad collection of Federal activities affecting individual industries and sectors. These proposals, and the conflicting pressures they have created, illustrate the dilemma stated at the beginning of this chapter: Increased Federal involvement in the economy carries with it both the potential to improve and the threat of reducing the economy’s efficiency and adaptability.

The steel industry, for example, faces a major financial burden in complying with clean air and water mandates. It is also beset with major problems of economic adjustment because of vigorous foreign competition, technological evolution, changes in labor and raw material costs, and geographic and compositional shifts in the demand for steel. Similarly complex circumstances have been developing in the auto sector for several years. In 1980 the combination of recession and sharply higher gasoline prices focused public attention on the domestic industry’s longer term problems of coping with foreign competition, improving productivity, and retooling to meet the

changed needs of customers. Rubber is a third large U.S. industry that has been confronted by intense structural problems.

The realization that many of the dislocations brought about by new conditions have been disproportionately concentrated in certain regions of the country, and growing recognition of the scale of investment in our industrial infrastructure necessary to meet all our social and economic goals, led to a broad-scale Federal review of policies for promoting and channeling investment, encouraging innovation, and dealing with labor-market disruptions. The President's Economic Revitalization Program, described in Chapter 3 of this *Report*, emerged from this review.

Two central issues arose in these discussions: first, the extent to which the Federal Government ought to be involved in determining the pace of growth and decline in individual industries and regions—in other words, the extent to which the government ought to be involved in “picking winners” or supporting older industries that are faced with major adjustments; second, the extent to which the government ought to supplant the private sector in allocating capital if that is required by the objectives of industrial policy.

The review concluded that either type of Federal intervention would go beyond the legitimate needs for balance, consistency, and flexibility in Federal actions affecting individual industrial sectors.

For one thing, it is presumptuous to assume that successful identification of winning and losing industrial sectors is possible. Moreover, even within so-called “losing” sectors, individual firms often outperform many of the firms in “winning” sectors. As an example, one need only compare the outstanding performance of many “mini-mill” operators in the beleaguered steel industry to that of many less profitable firms in the highly touted semiconductor industry.

Attempts to pick winners or reinvigorate declining industries introduce considerations into strategic industrial decisions that, while not now absent, are certainly less directly felt. Greater government involvement in the detailed workings of the economy has already increased the political aspect of economic decisionmaking and led to constant pressures for the Federal Government to aid firms, regions, and industries. Establishment of an explicit industrial policy, together with the authorities for implementing it, would intensify these trends.

The consequences to the economy of reductions in efficiency and flexibility that often accompany government intervention have already been detailed in this chapter. But at least three special dangers would be associated with the development of an overt government role in picking winners:

First, a successful policy of identifying and supporting promising sectors implies a willingness on the part of the government to let

some of the firms in the chosen sectors fail. A portfolio of venture capital investments designed to pick only winners typically ends up with a few large winners and many losers. However, the government's necessary sensitivity to income losses, intensified by the fact that it would bear a special responsibility for a chosen sector, makes it difficult, if not impossible, to tolerate such a portfolio. The more likely outcome—one frequently observed in other countries—would be a reluctance to abandon individual firms that fail. This could more than offset any gains achieved by the successful few among the chosen firms.

Second, there could be a tendency to implement a strategy of picking winners by excessive reliance upon policies where the government has broader discretion (e.g., trade policies) rather than designing policies specific to the problem at hand. The resulting use of easily available, but not necessarily efficient, policy instruments would create an unbalanced response and introduce additional distortions and rigidities into the economy. Adding to this tendency would be the policymaker's inevitable recognition that a policy tool designed for one purpose can often be used for another. For example, the economic prospects of an industry could be indirectly manipulated by changes in the stringency of government regulation. Such changes, however, when motivated by objectives of industrial policy, might be counterproductive to achieving the purpose for which the regulation was intended.

Third, to avoid "wasteful duplication," the government would be likely to centralize the process of picking winners. Such centralization would forgo the advantages of risk-diversification that come from decentralized decisionmaking and would further heighten the pressures to protect losers among the chosen sectors.

Similar arguments would apply to policies aimed at manipulating the normal workings of capital markets. While prudence argues strongly for policies which remove impediments to the efficient allocation of capital, prudence also suggests that a centralization of explicit allocation authority would run counter to the overriding need for flexibility in the present economic environment.

PREFERRED POLICY APPROACHES

While it is inappropriate for the government to utilize its policy instruments to support winners and discourage losers or to centralize the allocation of capital resources, government policies can be used in appropriate ways to make a difference in the economy at large and in individual industries. Tax policies, for example, can influence the level of investment and risk-taking in the economy as a whole without excessive intrusion into the affairs of individual firms or industries. Although regulatory policies, by their very nature, constitute greater

involvement in the operation of individual firms or individual sectors, they too can be designed to attain their goals with minimal intrusion and can take into account the circumstances of individual industries.

Trade policies also shape decisions in individual markets. Without choosing winners and losers, it is still possible for the government to reduce constraints to free international transactions, to police these transactions for violations of national law and international trade agreements, and to screen individual cases carefully to afford relief from unfair import competition.

Agricultural policy decisions can be designed to reduce instability in that sector and to ensure that those receiving the benefits of such policies also pay for the burden such policies impose. Similarly, the continued deregulation of financial institutions can assure the aggressive pursuit of efficiency and innovation in that sector. Labor market policies can try to help workers in declining regions or industries adapt more rapidly and with less human suffering to changing conditions.

In sum, recognition that the numerous policies of the Federal Government exert a substantial influence on individual sectors of the economy leads logically to a search for coherence in policy. The pursuit of such coherence is both justified and desirable when it involves the thoughtful coordination of policies in areas where government intervention is necessary. The danger lies in the unwise manipulation of policy variables designed for one set of purposes to attain goals which can be better achieved by the private market.

CHAPTER 3

The Economy: Review and Prospects

THE U.S. ECONOMY IN 1980 felt the effects of the huge 1979 oil-price shock. The 5-year recovery and expansion that followed the 1974-75 downturn came to an end with a sharp but brief recession and the underlying rate of inflation moved up to the 9- to 10-percent range. The most striking feature of the year, however, was the volatility of economic developments. Real gross national product (GNP) declined at a record rate in the second quarter but advanced thereafter, producing the briefest recession on record. Interest rates surged to record heights, plunged downward, and then rose to new peaks and declined again, all within the space of 9 months. Overall, these developments made for a historically unprecedented year.

While the outlook is for only a modest pace of recovery in 1981, the persistence of unacceptably high inflation and the Nation's vulnerability to energy shocks call for continued restraint in both monetary and fiscal policy. A modest-sized tax cut combined with restraint in Federal spending, however, would be compatible with this prudence. And if, as the Administration has proposed, a substantial part of the tax cut is oriented toward business investment, we can help support the recovery in a way that comes to grips with the country's longer-run needs.

A REVIEW OF 1980

The resilience that had characterized the economy during 1979 ultimately gave way to pressures from sharply higher energy prices and policy measures undertaken in the fight to cool inflation. Over the 4 quarters of 1980 real GNP fell 0.3 percent, but the pattern during the year was quite uneven. The first quarter's 3.1 percent annual rate of growth in real GNP was followed by a record 9.9 percent rate of decline in the second. After midyear, much to the surprise of most economic forecasters, the economy rebounded; real GNP grew at a 3.1 percent rate during the second half of the year. (All national income and product account data for the fourth quarter of 1980 are based on highly preliminary estimates.)

The weakness of the economy during the first half of 1980 led to significant deterioration in labor markets. The unemployment rate

rose from 6.0 percent in December 1979 to 6.3 percent in March and then spurted to a peak of 7.6 percent in May. The rate remained between 7.4 and 7.6 percent for the rest of the year. During the first half of the year, employment declined by 1.0 percent, a decline of 1 million jobs. From June to December, employment grew 0.5 million, thus reversing a substantial portion of the first-half loss. The labor force grew 1.3 percent over the 4 quarters of the year.

The rate of inflation increased in 1980. The implicit price deflator for GNP rose 10.0 percent over the 4 quarters of 1980, a 1.9 percentage point increase over the 1979 rate. For the 12 months ending November 1980 the consumer price index (CPI) for all urban consumers rose 12.6 percent—the same rate of increase as in the 12 months ending in November 1979. Due to the special circumstances created by increases in the prices of food and energy, and the treatment of home purchase and finance in the CPI, this latter comparison understates the rise in inflation in 1980. Excluding these factors, the CPI rose 9.9 percent as compared with 7.2 percent in 1979.

Wage rates, which had shown moderation during 1979 despite the rise in inflation, accelerated in 1980. Average hourly earnings grew 9.3 percent, up 1 percentage point from the 1979 rate. For the year ending with the third quarter of 1980 productivity was virtually unchanged, although this was an improvement as compared with the 1-percent decline recorded in 1979.

The year saw continued improvement in the U.S. international position. After absorbing the huge 1979 increases in our foreign oil bill, the U.S. balance of payments moved sharply into surplus in the second half of the year. All other major oil-importing countries, by contrast, are experiencing substantial current-account deficits. The U.S. dollar remained strong in relationship to other currencies throughout much of the year. At year-end, on an average weighted basis, its value was 6 percent higher than at the beginning of the year. The United States reduced its total energy use in 1980. In addition, as compared with 1979, oil imports declined by 20 percent to about 6½ million barrels per day at year-end. In 1980 we imported less oil than in any year since 1975. While a portion of this reduction can be traced to weakness in economic activity, much was due to intensified conservation efforts that have followed the recent rapid increases in energy prices.

AN OVERVIEW OF THE YEAR

The slowing in the growth of the economy that occurred in 1980 was largely the consequence of events that began in 1979.

The first of these was the significant disruption in the world oil market triggered by lost Iranian oil production. Extensive efforts to

build up oil inventories and maintain adequate supplies boosted the price of imported oil purchased by U.S. refiners by 94 percent during 1979. This, together with the phased decontrol of the prices of domestically produced oil, resulted in the average refiners' acquisition price for all oil in the United States rising from \$13 per barrel in January 1979 to \$24 per barrel in December 1979. This huge increase added to inflationary pressures and reduced purchasing power. The Council of Economic Advisers has calculated that the drag on purchasing power due to these higher oil prices reached 2 percent of GNP during 1979.

A second restraining force evident at the end of 1979 was the stance of monetary and fiscal policy. A major goal of macroeconomic policy since early 1979 has been to minimize the inflationary consequences of the oil-price shock by avoiding the spillover of accelerating consumer prices into wage demands, then higher business costs, and eventually higher long-term inflation. The Federal high-employment budget surplus (discussed in more detail later in this chapter), which had increased by \$7½ billion in 1978, tightened an additional \$13½ billion in 1979. Efforts to restrain growth in money and credit resulted in rising short-term interest rates during 1979, especially in the second half. From July to December 1979 the 91-day Treasury bill rate rose from 9.3 to 12.1 percent, while the prime rate increased from 11.5 to 15.5 percent.

A third source of potential demand restraint, which became evident at year-end 1979, stemmed from imbalances in the spending behavior of households. In the last half of 1979 real disposable income rose 1 percent, while real consumption spending advanced 2 percent. As a consequence, the personal saving rate fell 0.9 percentage point during the last half of 1979 to a 28-year low of 4.7 percent in the fourth quarter. At the same time, consumer debt burdens remained high and delinquency rates on consumer loans continued to rise. It seemed clear that some significant retrenchment by the consumer was likely, even in the absence of further oil drag and continued policy restraint.

In light of these developments, it was expected that 1980 would be a year of declining economic activity. Indeed, 1 year ago this *Report* stated: "The expected recession is likely to be mild and brief. Declines in real gross national product (GNP) should not extend much past midyear, and economic growth will resume later this year, albeit slowly at first. Over the 4 quarters of 1980 real GNP is forecast to decline by 1 percent . . . the unemployment rate is likely to rise . . . to 7½ percent in the fourth quarter . . ." Despite the general accuracy of last year's forecast, views about the likely course of the economy went through several rapid changes as the year unfolded.

Early in 1980 there were few signs of recession. If anything, activity seemed to be picking up. The evidence available at the time hinted that households, far from retrenching, were on a buy-in-advance spending spree. Retail sales, which had risen at an annual rate of 13 percent from October 1979 to December 1979, accelerated to an annual rate of nearly 43 percent in January 1980. Auto sales, which had been running at an annual rate of 9.4 million units in October 1979, spurred to 10.3 million units in December 1979 and to 11.9 million units in January 1980.

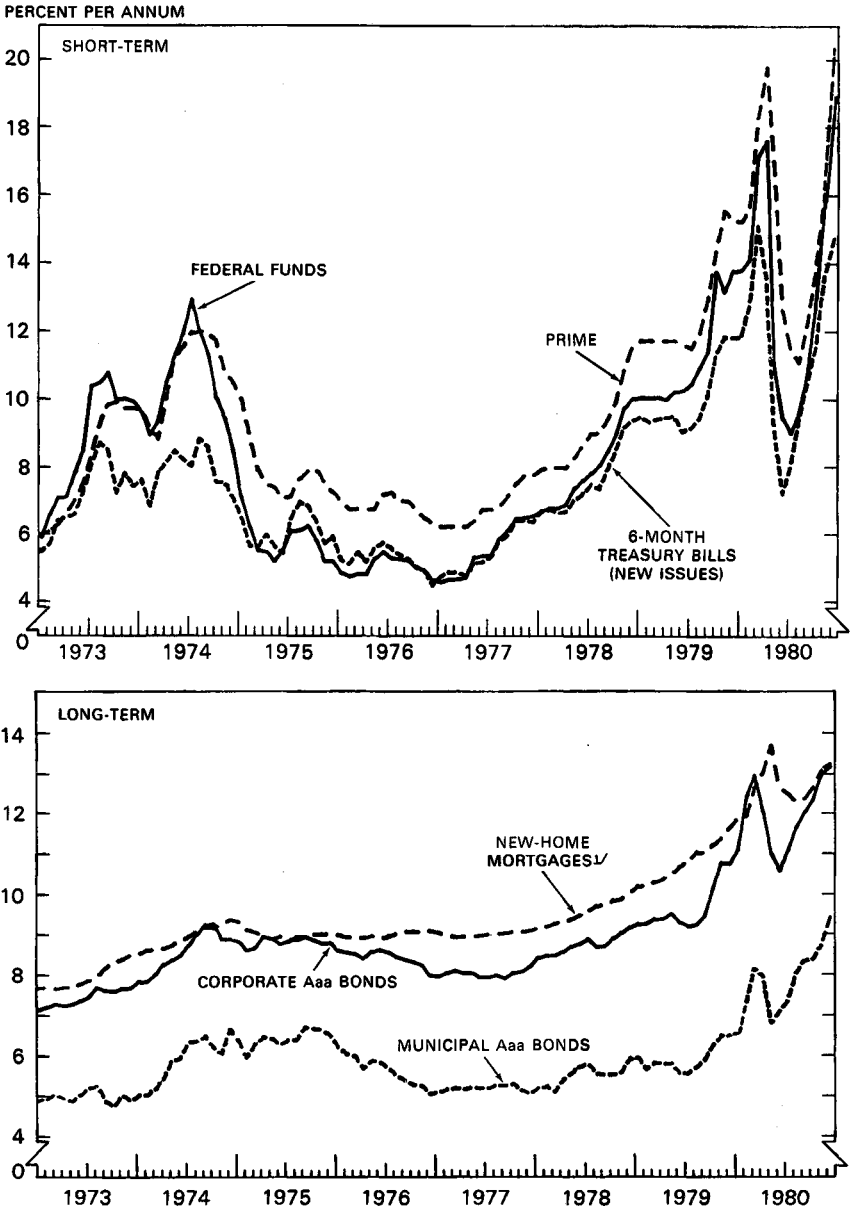
International events contributed to the sense that demand could be stronger than anticipated. Continued Mideast instability, the unresolved issue of the American hostages in Iran, and the Soviet invasion of Afghanistan all raised the possibility of greatly expanded defense spending, perhaps enough to sustain economic growth despite a predicted slowing in private demand.

The inflation data also seemed to reflect an apparent acceleration in economic activity. The CPI, which had increased at an annual rate of between 13 and 14 percent during the last 3 months of 1979, rose at a rate of 18 percent in January and February. Although a large part of this speedup was due to higher oil prices, other prices also accelerated. For the 3 months ending in February, the CPI excluding energy prices rose at an annual rate of 12.9 percent, in contrast to the 12.2 percent rate during the 3 months ending in November 1979. The producer price index (PPI) for finished goods other than energy rose at an annual rate of 16½ percent in January 1980. More ominously, wage rate increases, which had remained moderate throughout most of the year, accelerated in late 1979 and early 1980.

Meanwhile, business demand for credit accelerated, with business loans growing at a rapid 24 percent annual rate from December 1979 to February 1980. Speculative activity in commodity and financial futures markets intensified, and interest rates continued their rapid climb (Chart 7). In early March the 91-day Treasury bill rate rose to 15.7 percent while the prime rate hit 17.75 percent. Several forces were apparently at work. Each new increase in short-term interest rates brought fears of higher rates, and thus further pressures to borrow immediately. In addition, hints of credit controls apparently motivated firms to borrow in advance of actual need.

Chart 7

Selected Interest Rates and Bond Yields



✓ EFFECTIVE RATE ON CONVENTIONAL MORTGAGES IN THE PRIMARY MARKET.

SOURCES: DEPARTMENT OF THE TREASURY, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, FEDERAL HOME LOAN BANK BOARD, AND MOODY'S INVESTORS SERVICE.

By early March there was fear that inflationary pressures and inflationary expectations were mounting despite the restraining influences of fiscal and monetary policy, and that without some additional action these would validate and further accelerate wage demands and ultimately lead to an explosion of prices. This would have ended any chance of containing the 1979 oil-price shock. It was in this environment that the Administration and the Federal Reserve moved to suppress the speculative fever and return order to financial markets. On March 14 the President announced a series of budgetary and administrative actions designed to stabilize the situation. These included measures to reduce Federal expenditures, to strengthen wage and price monitoring, and to encourage energy conservation. In addition, the President authorized the Federal Reserve to institute a program of selective controls on credit.

The controls program—explained in more detail below—induced banks and other financial institutions to intensify actions to restrict the availability of virtually all types of credit. The growth of bank business loans and other lending covered by the program was curtailed sharply. The program also had the important psychological effect of curtailing household borrowing, as many forms of credit not explicitly covered by the program, such as home mortgages and auto loans, also fell sharply. A good part of these declines, however, probably stemmed from the rapid rise in interest rates.

Economic activity was apparently beginning to slow even before the imposition of the credit controls, but the subsequent decline in consumer demand was intensified by the controls. The economy reached its cyclical peak in January. Nevertheless, the first-quarter growth in real GNP was at an annual rate of 3.1 percent. During the second quarter real GNP dropped at an annual rate of 9.9 percent, exceeding the previous record of 8.2 percent set in the first quarter of 1975. Furthermore, the decline of 10.4 percent at an annual rate in real final sales was far and away the sharpest postwar drop in that category. Housing and automobile sales were the key sectors of weakness, accounting for about two-thirds of this drop in final demand. There was a modest amount of inventory accumulation but it was surprisingly small given such a large decline in final sales.

Interest rates, which had continued to rise for a brief time after the introduction of the credit controls program, fell sharply due to weakening loan demand and a declining economy. Rates peaked around the end of March and then fell further and more quickly than they

had risen just 2 months earlier. By late June the credit controls were no longer constraining the demand for credit, and by July the prime rate had fallen to 11 percent, down from its peak of 20 percent. In light of these developments, the controls were removed in early July.

After the second quarter's record drop in real GNP, most observers predicted that the economy would experience 2 more quarters of decline. There were fears that the downturn might approach the severity of the 1974-75 recession. Indeed, the unemployment rate, which had jumped to 7.6 percent in May, was forecast by many to be between $8\frac{1}{2}$ and 9 percent by year-end.

In fact, private demand rebounded with surprising alacrity. The sharp decline in interest rates, combined with the absence of a significant stock of unwanted inventories, contributed to the brevity of the recession. The two sectors that had led the decline in the second quarter recovered quickly in the third. By September, housing starts had increased 70 percent above their May low—by far the quickest bounceback on record. Car sales also regained some of their lost ground. October sales ran at an annual rate of 9.2 million units, still lower than their year-earlier levels, but 28 percent above their May low rate of 7.2 million units. The third quarter rebound in real final sales was a strong 4.1 percent, but inventory liquidation held the growth in real GNP to a more modest 2.4 percent.

In the fourth quarter real growth picked up to a 3.7 percent annual pace, with continued strength evident in personal consumption and housing. With the turnabout in economic activity in the second half of the year, the labor market also improved.

At the same time that the recovery was taking place, tightening monetary conditions produced another upswing in the interest rate roller coaster (Chart 7). From July to December the prime rate advanced from 11 percent to a record level of $21\frac{1}{2}$ percent, while the Treasury bill rate rose from 8 percent to 17 percent. Long-term interest rates also rose by about 2 to 3 percentage points over the same period. After mid-December interest rates dropped sharply for a time but nevertheless remained unusually high. These developments raise serious doubts about the future of the recovery and bring prospects of a leveling off or possibly a decline in output during the early part of 1981. Furthermore, the persistence of the Iran-Iraq war raises the possibility of sharply higher energy prices during 1981. At the end of 1980 the key features which had characterized the U.S. economy over most of the previous 18 months remain dominant: a surprising strength of demand straining against high interest rates, a stubborn inflation, and continued vulnerability to external oil shocks.

THE MAJOR SECTORS OF AGGREGATE DEMAND

The decline of the economy during 1980 as a whole was dominated by drops in expenditures on real consumer durable goods (down 7.7 percent over the 4 quarters), residential structures (down 18.0 percent), and real business fixed investment (down 6.0 percent) (Table 14). The sectors of real demand that grew during the year were personal consumption of services, Federal Government purchases, and net exports. Service consumption grew 2.8 percent over the 4 quarters of 1980. Federal Government purchases were up 4.7 percent. Real net exports grew from \$42.2 billion in the fourth quarter of 1979 to \$55.7 billion in the fourth quarter of 1980. A 6.7 percent reduction in imports combined with a 3.9 percent rise in exports to produce this result.

TABLE 14.—*Growth in major components of real gross national product, 1976–80*
[Change, fourth quarter to fourth quarter]

Component	1976	1977	1978	1979	1980 ¹
Percent change:					
Real gross national product.....	4.4	5.8	5.3	1.7	-0.3
Personal consumption expenditures.....	5.7	5.0	4.8	2.0	-3
Business fixed investment.....	7.8	13.5	9.0	2.9	-6.0
Residential fixed investment.....	19.8	12.5	-0	-6.1	-17.6
Government purchases of goods and services.....	-1.3	3.6	1.6	1.9	1.5
Federal.....	-8	5.0	-1.3	2.1	4.7
State and local.....	-1.7	2.7	3.3	1.7	-3
Real domestic final sales ²	4.9	5.9	4.4	1.7	-1.3
Change as a percent of GNP:					
Inventory accumulation.....	.4	.4	.2	-.8	.0
Net exports of goods and services.....	-.7	-.4	.9	.8	.9

¹ Preliminary.

² GNP excluding change in business inventories and net exports of goods and services.

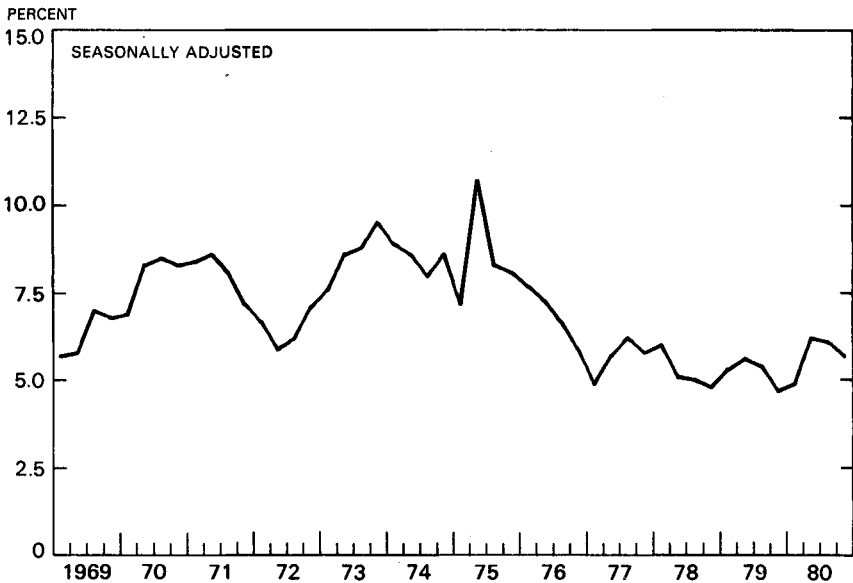
Source: Department of Commerce, Bureau of Economic Analysis.

Personal Consumption Expenditures

The year 1980 began with the personal saving rate at a 28-year low, with consumer debt burdens near record highs, and with attitude surveys showing consumer pessimism about the outlook. The modest strength in consumption that had been evident in 1979 despite the deceleration in real incomes had worsened the budget position of households. This, together with high interest rates and the imposition of credit controls, produced a retrenchment in consumer outlays. Real personal consumption expenditures fell in 1980 for the first time in 6 years. The 0.3 percent decline in consumption over the year, combined with the modest 0.5 percent increase in disposable income, helped to increase the saving rate from 4.7 percent in the fourth quarter of 1979 to 5.7 percent in the fourth quarter of 1980 (Chart 8).

Chart 8

Personal Saving Rate



SOURCE: DEPARTMENT OF COMMERCE.

The decline in consumption in 1980, which was largely the result of a decline in credit-sensitive purchases—particularly durable goods—was concentrated in the second quarter. In that quarter total real consumption fell at a record rate of 9.8 percent. The improvement in household debt positions that had begun in late 1979 was accelerated during the late spring and early summer by the credit controls program. Extensions of consumer credit in the second quarter fell at nearly a 60 percent annual rate. Outstanding consumer debt declined for 4 straight months from April to July, and for the second quarter as a whole it fell at a record 13.8 percent annual rate.

The rapid drop in interest rates helped to bring a quick reversal of the second quarter's consumption decline. In June real retail sales grew at a 17.8 percent annual rate; the gain in July was at an even greater 27.3 percent pace. For the third quarter as a whole real consumption advanced at an annual rate of 5.1 percent, regaining nearly one-half of the second quarter's drop. In the fourth quarter real consumption grew at a 3.3 percent annual rate.

Durable Goods. Real expenditures on consumer durables fell 7.7 percent during 1980, their second year of decline. The consumer durables cycle during 1979 and 1980 was much like that of the 1974-75 recession. During the first half of 1980 real consumer durable goods

expenditures continued the virtually unbroken decline that had begun after the fourth quarter of 1978. Over this period purchases of real consumer durables declined 16.3 percent, with the steepest drop concentrated in the second quarter of 1980. A long and gradual slide culminating in 1 quarter of very steep decline was also the pattern during 1974-75; the peak-to-trough decline then was also 16.3 percent. During the last half of 1980 real consumer durable expenditures regained nearly one-half of the second quarter's decline. Growth in the third quarter was at an annual rate of 21.9 percent. Growth in the fourth quarter was at a rate near 7 percent. Automotive purchases dominated quarter-to-quarter movements in consumer durables during the year, leading the first-half declines as well as the last-half gains. By year-end car sales were running at a 9-million unit rate, but sales were apparently being held back by a combination of the high interest rates on consumer loans and high car prices. Real automotive purchases fell 12.9 percent during 1980, as a whole. Similar weakness was evident in real consumer demand for other durable goods, which fell 4.0 percent over the 4 quarters of 1980.

Other Consumption. Real nondurable goods consumption fell 1.2 percent during 1980. Purchases of gasoline, oil, and other fuels fell 3.2 percent. In part this reflected the effects of the recession, but much of the decline in these energy demands was due to conservation efforts in response to sharply higher prices. By year-end the consumption of these goods was 11 percent below the peak levels set in 1978.

Real consumption of services grew at a sluggish 2.8 percent over the 4 quarters of 1980, down from the 1979 pace of 3.6 percent. Service consumption tends to be much more stable than goods consumption over the business cycle because many of these expenditures, such as housing and medical care, cannot be delayed or postponed. Nevertheless, important cyclically sensitive components of service consumption were quite weak during the year. Transportation services, for instance, fell at an annual rate of 11.9 percent in the second quarter and 2.0 percent over the entire year.

Residential Investment

The path of real investment in residential structures over the last 2 years was like that of consumer durables. It was marked by a slow and gradual slide throughout 1979, ending with a very sharp decline in the spring of 1980. Residential construction picked up rapidly thereafter, but at year-end housing starts had leveled off in response to higher mortgage interest rates. The pattern of housing activity in 1979 and 1980 reflected new developments in housing finance. As noted in Chapter 2, mortgage lenders now compete for loanable funds on a more even footing with other lenders. Consequently, the

chief cyclical determinant of housing activity has become interest rates rather than credit availability. As events have demonstrated, however, these institutional changes did not insulate housing from tighter monetary conditions.

The financial environment that determines the health of the housing sector had been weakened by the sharp rise in interest rates that began in 1979. By October of that year, most mortgage rates had risen to around 13 percent, a level that discouraged many potential home buyers. At the same time, increases in construction loan rates stretched the ability of homebuilders to finance new construction and carry inventories of unsold homes. This trend was accentuated in early 1980 by a further rise in interest rates on mortgage commitments to a record 16 percent in April. The increased interest rates pushed monthly mortgage payments higher than many could afford. In addition, even though mortgage finance was largely exempt from the provisions of the credit controls program, mortgage lenders were less willing to commit long-term funds in such an uncertain environment. During the year State and local government housing authorities continued to provide a substantial amount of mortgage support through purchase of residential mortgages at below-market interest rates financed by tax-exempt bonds. But Federal and related agencies provided only modest support to the mortgage market as compared with the last cyclical downturn. Home sales reached their nadir by late spring. Housing starts in May plummeted to a 906,000-unit annual rate, down 36 percent from their January level and down nearly 50 percent from their average 1979 level. During the second quarter single-family starts averaged 671,000 units at an annual rate, which was only slightly more than one-half 1979's total. Multifamily units fell to a rate of 382,000 units in the second quarter after averaging 551,000 units during 1979.

The midyear decline in mortgage interest rates lagged somewhat behind the drop in other long-term yields, but by August most mortgage rates had fallen to near 12 percent. Even with the high interest rates, however, sales of new homes had begun to increase in May, and construction activity followed quickly. Housing starts increased in June for the first time in 6 months. The surprisingly quick increase in starts probably stemmed from the relatively low level of new home inventories during the spring. With very few houses for sale, the increase in sales provided the needed stimulus for new building.

During the fall and early winter of 1980 mortgage rates again began to creep upward. Nonetheless, sales of new homes and total housing starts remained moderately strong through November. Although some weakening in sales was evident during the fourth quar-

ter, the low level of inventories encouraged a continuation of building activity.

The average price of a new home (adjusted for changes in quality) increased at an 11 percent annual rate in the first 3 quarters of 1980, which was about as fast as in the preceding year. Many of the homes built in 1980 were smaller and more austere than those constructed in preceding years, reflecting the recession weakness in incomes and the high cost of mortgage finance.

Business Fixed Investment

Real business fixed investment declined 6.0 percent over the 4 quarters of 1980. Business fixed investment averaged 10.7 percent of GNP, somewhat lower than the 11.0 percent level in 1979. Producers' durable equipment declined 4.8 percent during 1980. The volatile automotive portion of equipment purchases fell 16.2 percent during the year, its second year of very large declines. The remaining components declined 2.4 percent. Investment in nonresidential structures dropped 9.1 percent over the same period (Table 15).

TABLE 15.—*Changes in real business fixed investment, 1975–80*
[Percent change, fourth quarter to fourth quarter]

	1975	1976	1977	1978	1979	1980 ¹
Nonresidential fixed investment	-7.4	7.8	13.5	9.0	2.9	-6.0
Structures	-5.6	2.6	4.8	11.8	9.5	-9.1
Producers' durable equipment	-8.0	10.2	17.4	7.7	.4	-4.8
Autos, trucks, and buses	2.0	17.2	23.9	9.8	-22.9	-16.2
Other	-10.4	8.5	15.7	7.2	7.4	-2.4

¹ Preliminary.

Source: Department of Commerce, Bureau of Economic Analysis.

Several factors contributed to the decline in business fixed investment. First, the deceleration in final sales reduced the need for immediate additions to capacity. The Federal Reserve Board's index of capacity utilization rates in manufacturing dropped from 83.9 percent in January to a 5-year low of 74.9 percent following the spring decline. The sizable drop in this aggregate index, however, masked some important differences among certain industries. In the durable goods materials industries, for instance, capacity utilization rates fell below 70 percent. Thus key suppliers of hard goods found themselves with plenty of capacity to satisfy demand over the near term. In addition, forecasts of recession indicated that capacity needs would not be rising until early 1981. These forecasts, in conjunction with the high cost of funds during the early part of 1980—widely perceived as temporary—made the delay of capital investment plans more attractive.

Finally, shrinking sales and increasing debt service costs seriously reduced corporate cash flow. Internally generated funds for invest-

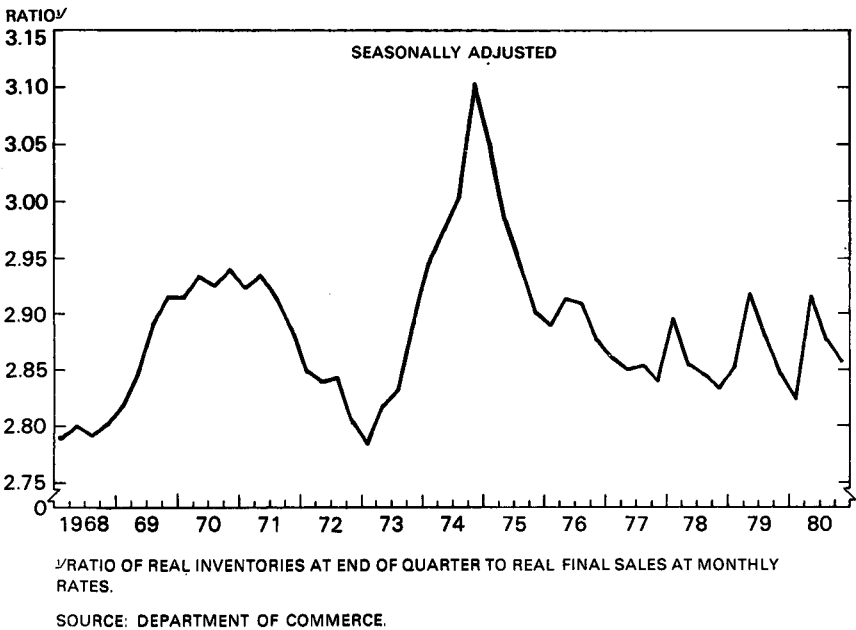
ment were sharply diminished by the 13.3 percent decline in profits during the second quarter of 1980. While aggregate measures of profitability and corporate cash flow reflected cyclical weakness, these measures understated the extent of the problem by masking important distributional imbalances. In particular, oil and coal industry profits represent a growing share of the aggregate. From the first quarter of 1979 to the third quarter of 1980 corporate profits in the petroleum and coal industries grew from \$15.0 billion, or 6.9 percent of total corporate profits, to \$22.2 billion, or 11.3 percent.

Inventory Accumulation

Cautious inventory policies continued throughout 1980. Real inventory accumulation in the fourth quarter was virtually unchanged from its level in the fourth quarter of 1979 and thus had almost no impact on the overall growth in real GNP over the 4 quarters of 1980.

Chart 9

Real Inventory—Final Sales Ratio, Nonfarm Business



As compared with the 1970s, inventory-to-sales ratios remained relatively low during 1980 (Chart 9). What was more interesting was the rapid response of production to the changes in final sales. As

Table 16 shows, the pattern of output, sales, and inventories in the nonfarm business sector in 1980 was quite different from the pattern of the 1974-75 recession. A sharp drop in final sales in the fourth quarter of 1974 was accompanied by a smaller percentage reduction in output. This resulted in an unintended accumulation of inventories, with real inventory investment of \$13.3 billion at an annual rate. The inventory-to-sales ratio rose markedly. This set off a sharp adjustment in subsequent quarters, and over the first half of 1975 inventories were decumulated at a \$13.9 billion annual rate.

TABLE 16.—*Real output, sales, and inventories, nonfarm business sector, 1974-75 and 1980*

(Seasonally adjusted annual rates)

Item	1974		1975		1980			
	III	IV	I	II	I	II	III	IV ¹
	Percent change							
Output.....	-2.8	-5.9	-10.6	6.1	1.7	-10.8	3.1	4.9
Contribution of: ²								
Final sales ³	-9	-8.0	-5	4.6	1.2	-11.4	4.3	3.3
Inventory accumulation	-1.9	2.2	-11.1	1.4	.4	.7	-1.2	1.6
	Billions of 1972 dollars							
Inventory accumulation	7.8	13.3	-15.6	-12.2	-1.4	.6	-3.1	1.6

¹ Preliminary.

² Change as percent of output.

³ Includes a small amount of final sales by farms.

Source: Department of Commerce, Bureau of Economic Analysis.

This sharp inventory cycle was not in evidence in 1980. Final sales fell at an annual rate of 10.8 percent in the second quarter, the most rapid decline ever recorded. But the output response was nearly as rapid and inventories increased at an annual rate of only \$0.6 billion. While inventories did decline in the third quarter of 1980, indicating efforts to trim unwanted inventories, the swing was distinctly more modest than in 1974-75.

Several factors account for the improved management of inventories. Inventory control and information systems continue to improve the ability of production managers to maintain the proper balance between raw material stocks and market demand. Also, unlike the earlier period, there were no serious doubts about the availability of raw materials and supplies this time around. Thus, precautionary overstocking of inventories to ensure adequate supplies of inputs for production was not apparent in 1979-80. In addition, high and volatile interest rates have increased both the cost and risk of holding large inventory stocks.

The External Sector

Following 2 years of rapid expansion, the growth in the volume of U.S. merchandise exports fell in 1980 as world economic activity slowed. At the same time, however, the volume of U.S. imports

dropped even faster, in large part because of the recession here. As a result, net exports measured in constant 1972 dollars showed a very large \$13.5-billion increase during the year.

In value terms, shifts in the U.S. trade balance were importantly affected by payments for oil. From the third quarter of 1979 to the first quarter of 1980 the oil import bill increased by about \$20 billion at an annual rate because of much higher oil prices. Other trade flows only partially offset this increase, and the merchandise trade deficit widened by \$15 billion to an annual rate of \$43 billion in the first quarter. After the first quarter, however, the volume of oil imports declined sharply. Thus, despite some further increases in oil prices, the oil bill fell, contributing to the marked narrowing of the trade deficit. The merchandise trade deficit for the whole of 1980 was an estimated \$26 billion, \$3.5 billion smaller than in 1979. Invisibles transactions, which reached a record surplus of \$33 billion at an annual rate in the first quarter, more than offset the deficit on merchandise trade during 1980.

For 1979 the U.S. current-account deficit was a small \$788 million. It was in deficit by about \$10 billion at an annual rate in the first half of 1980, moved sharply into surplus in the third quarter, and is likely to show a surplus of \$3-\$6 billion for 1980 as a whole.

The most noteworthy feature of recent U.S. trade performance has been its strength. From 1977 to the second quarter of 1980 the volume of U.S. exports grew by 40 percent. More significantly, the share of U.S. exports as a percentage of the total exports of the industrial countries over this period increased by about 1½ percentage points, reversing a declining trend visible since the 1950s. At the same time, the volume of U.S. imports showed almost no growth, even though real GNP rose by about 7 percent. This was a major break in longer-term trends, which have shown U.S. imports growing at rates well above the growth of real GNP.

These aggregate indicators of recent trade performance are all the more striking in view of the widespread popular notion that the United States is losing its ability to compete in both foreign and domestic markets. It may be that these views stem from unwarranted generalizations from particular sectors—such as automobiles, where foreign pressure clearly has increased—to aggregate trade. In addition, it may be that losses in relative terms vis-a-vis certain trading partners—most notably Japan and a certain number of newly industrializing developing countries—are viewed as more significant. Each of these concerns is certainly legitimate to some extent, but they should not obscure the overall success of the United States in foreign trade. Encouragement can be drawn from our recent aggregate performance, which most analysts ascribe to the increased competitive-

ness of U.S. producers in the wake of the depreciation of the dollar in 1977 and 1978.

Government Purchases of Goods and Services

Real government purchases of goods and services grew 1.5 percent during 1980, as gains in Federal purchases more than offset the decline in State and local purchases. Over the 4 quarters of 1980 State and local purchases fell 0.3 percent. Reduced purchases of durable goods (down 1.6 percent) and structures (down 6.5 percent) were the key factors. Real compensation of employees grew 0.7 percent in 1980, a significant deceleration from the 2.4 percent average rate in the previous 3 years. There had been widespread expectations that reductions in Federal grant-in-aid support, particularly for public service employment payrolls, combined with the recession squeeze on tax receipts and political pressures for reduced growth, would force an even sharper cutback in the growth of State and local payrolls. Instead, State and local governments have attempted to insulate payrolls from the worst of the budget pressures while cutting expenditures elsewhere. The decline in structures investment over the year was heavily concentrated in those areas dependent on the housing cycle: sewer system construction and highway and street construction and renovation.

Real Federal purchases of goods and services grew 4.7 percent during 1980. Real defense spending grew 5.7 percent during 1980, with the pace of spending picking up in the last half of the year. Real nondefense purchases grew at a slower 3.2 percent for the year as a whole.

LABOR MARKET DEVELOPMENTS

The volatility in demand for goods and services during 1980 produced similar swings in the demand for labor (Table 17). Civilian employment peaked at 97.8 million in February 1980. Then during the next 4 months employment fell sharply (1.1 percent) to 96.8 million in June. Over this same period unemployment rose from 6.5 million to 7.8 million. Automobile and construction employment were especially hard hit. Although these two industries constituted only about 6 percent of total payroll employment, they accounted for nearly two-fifths of the decline in employment from February to June.

Employment growth resumed at midyear. The magnitude of the subsequent recovery differs, depending on which of the two standard measures of employment is utilized. Judged by the household survey, employment growth after midyear was relatively modest so that by year-end total employment was still 500,000 lower than in December 1979. When measured by data from business payrolls, however, em-

ployment grew more vigorously after midyear and by December 1980 stood some 450,000 higher than a year earlier. Statistical discrepancies of this sort are not unusual for changes over short periods of time. Even with this difference, both measures clearly indicate that the decline in overall employment during 1980 ended quickly.

TABLE 17.—*Labor market developments, 1976–80*

Component	1976 IV	1977 IV	1978 IV	1979 IV	1980 IV
	Percent change from year earlier ¹				
Increase in civilian employment, total.....	3.4	4.4	3.6	2.1	-0.3
Males 20 years and over.....	2.6	3.3	2.5	1.3	-7
Females 20 years and over.....	4.6	5.2	5.4	3.9	1.5
Both sexes 16–19 years.....	3.0	8.0	2.6	-.9	-6.7
White.....	3.3	4.3	3.2	2.0	-.2
Black and other.....	4.2	4.7	7.0	2.9	-9
	Percent ²				
Unemployment rate, total ³	7.8	6.6	5.9	5.9	7.5
Males 20 years and over.....	6.0	4.8	4.1	4.4	6.3
Females 20 years and over.....	7.4	6.7	5.7	5.7	6.7
Both sexes 16–19 years.....	19.1	16.6	16.3	16.2	18.3
White.....	7.0	5.7	5.1	5.2	6.6
Black and other.....	13.3	13.3	11.5	11.3	14.1
Participation rate, total ⁴	61.8	62.6	63.5	63.8	63.7
Males 20 years and over.....	79.9	79.9	79.8	79.6	79.2
Females 20 years and over.....	47.4	48.6	50.1	51.0	51.4
Both sexes 16–19 years.....	54.4	56.8	58.4	58.1	56.4
White.....	62.1	62.9	63.7	64.1	64.1
Black and other.....	59.6	60.6	61.8	61.7	61.2

¹ Changes for 1978 IV adjusted for the increase of about 250,000 in employment and labor force in January 1978 resulting from changes in the sample and estimation procedures introduced into the household survey.

² Seasonally adjusted.

³ Unemployment as percent of civilian labor force.

⁴ Civilian labor force as percent of civilian noninstitutional population.

Source: Department of Labor, Bureau of Labor Statistics.

The impact of the year's labor-market weakness was spread unevenly across demographic groups. The unemployment rate for adult men rose by a much greater percentage than did the unemployment rates for women and teenagers. The total unemployment rate rose from 5.9 percent in the fourth quarter of 1979 to 7.5 percent in the fourth quarter of 1980. The unemployment rate for men 20 years and over rose from 4.4 percent to 6.3 percent during this period. By contrast, the unemployment rate for women 20 years and over only increased from 5.7 to 6.7 percent. In the third quarter of 1980 the adult male unemployment rate exceeded the adult female rate. While this is highly unusual, adult male unemployment rates typically rise more than adult female rates during recession. This is because output declines tend to be concentrated in construction and durable goods manufacturing, sectors with a much higher proportion of adult male workers than, say, the relatively stable service sector. In the fourth quarter employment recalls in such industries as autos, steel,

and construction helped to reduce the adult male unemployment rate below that of adult females.

Unemployment duration lengthened significantly in 1980. In the last quarter of 1979, before the recession began, 48 percent of the unemployed had been looking for work for less than 5 weeks, and only 8.5 percent, or 524,000 people, had been without jobs for 27 weeks or more. By the last quarter of 1980 about 1.1 million people, or 14 percent of the unemployed, had been looking for work for 27 weeks or more. Many of these workers were eligible for up to 39 weeks of unemployment compensation, with additional benefits if their job loss was due to foreign competition or if their firms or unions provided supplemental unemployment benefits.

During the 4 years of economic expansion from 1976 to 1979 the civilian labor force grew at an average annual rate of 2.8 percent. The rise in unemployment during 1980 dampened this growth to 1.3 percent. After increasing by about 1 percentage point per year during the last half of the 1970s, the female labor force participation rate grew by about one-half, rising to 51.6 percent in 1980. The male labor force participation rate of 77.4 percent was down slightly over the year.

PRICE DEVELOPMENTS

Inflation dominated the economic news in 1980 as it did in 1979. The implicit price deflator for GNP rose 10.0 percent over the 4 quarters of 1980, substantially faster than the 8.1 percent rate of increase in the deflator during 1979 (Table 18). The producer price index for finished goods increased 11.7 percent from December 1979 to December 1980, following a 12.6 percent rise during the preceding 12 months. For the 12 months ending in November 1980, the CPI increased 12.6 percent, the same as over the corresponding period in 1979. These measures all reflected energy price surges early in the year and farm price increases late in the year. The most disappointing news, however, was the acceleration in various price measures which exclude the direct effects of such special factors as energy and food. As explained in Chapter 1, such measures are often used as a proxy for the "underlying" rate of inflation. After remaining surprisingly stable during most of 1979 in the face of very large oil-price increases, these measures showed significant increases in 1980.

The spring decline in aggregate demand brought rapid changes in the prices of certain sensitive industrial commodities. Sharp decreases were registered by producer prices of nonferrous metals as well as lumber and wood products. These price reductions had an important—if temporary—moderating influence on producer price measures. Excluding food and energy, producer prices of crude ma-

terials fell for a full third of the year. One other measure, the Bureau of Labor Statistics measure of spot market prices, fell 11.5 percent from February 1980 to June 1980. The turnaround in activity in the second half-year once again tightened industrial markets by enough to erase the early-year declines. Producer prices for crude materials excluding food and energy rose 10.6 percent in the 12 months ending in December 1980.

TABLE 18.—*Measures of price change, 1976–80*

[Percent change, fourth quarter to fourth quarter]

Item	1976	1977	1978	1979	1980 ¹
Implicit price deflators²					
Gross national product	4.7	6.1	8.5	8.1	10.0
Personal consumption expenditures	5.0	5.9	7.8	9.5	10.4
Private nonfarm business output	4.9	5.7	8.3	8.3	10.3
Consumer prices, total	5.0	6.6	9.0	12.7	^a 12.6
Farm value of food	-12.9	6.4	17.5	7.4	^a 14.5
Energy ⁴	6.2	8.2	7.5	36.5	^a 18.9
Home purchase and finance ⁵	3.8	8.9	13.4	19.8	^a 17.7
All other	6.3	6.1	7.3	7.9	^a 9.8
Producer prices of finished goods, total	2.7	6.9	8.7	12.6	12.0
Food	-4.4	7.4	11.6	7.8	7.4
Energy	5.0	9.2	6.4	62.0	28.4
All other	5.6	6.4	7.9	9.3	11.1

¹ Preliminary.

² Seasonally adjusted data.

³ November 1979 to November 1980.

⁴ Includes only prices for direct consumer purchases of energy for the home and for motor vehicles.

⁵ In both the table and the text, "home purchase and finance" consists of home purchase and financing, taxes, and insurance on owner-occupied homes.

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

Consumer Prices

As in 1979, the behavior of energy and food prices, together with the effects of mortgage interest rates on the CPI, attracted attention throughout the year. These are discussed in more detail below. Less marked by the public, but of more concern for the longer-run outlook, was the increase in the underlying rate of inflation as evidenced in the behavior of consumer prices after these special factors are excluded.

The underlying rate, as approximated by the CPI excluding food, energy, and home purchase and finance, jumped from 7.2 percent in the 12 months ending November 1979 to over 11 percent in December, and it stayed in the neighborhood of 12 percent during the first quarter of 1980. From April to November the measure grew at an average annual rate of 9.0 percent, a slowdown from the pace in the first quarter, but noticeably above the 1979 performance.

A second measure of the underlying inflation rate is the fixed-weight price index for personal consumption expenditures excluding energy and food. This measure, shown in Table 19 along with the

previously discussed CPI measures, reflects a similar acceleration over the year as a whole. Over the 4 quarters of 1980 the index rose 9.6 percent, up from the 7.2 percent increase over the 4 quarters of 1979.

TABLE 19.—*Alternative measures of consumer price changes, 1980*

(Percent change; seasonally adjusted annual rates)

Item	1979	1980				
	IV	I	II	III	IV ¹	
Consumer prices, total	13.7	16.9	13.6	7.2	12.1	
Food.....	10.2	5.9	6.5	13.3	15.3	
Energy ²	25.6	53.3	22.5	3.8	1.0	
Home purchase and finance ³	26.7	25.9	27.4	1	20.5	
Other.....	7.6	11.3	9.3	8.7	9.9	
<u>Personal consumption expenditures deflators:</u>						
Implicit deflator, total.....	10.7	12.0	9.8	8.8	10.9	
Fixed-weight price index, total.....	11.3	12.8	9.8	9.6	11.0	
Food.....	9.9	3.4	5.7	16.9	16.2	
Energy ⁴	31.2	53.4	20.5	2.1	6.5	
Other.....	9.0	10.3	9.3	8.7	10.1	

¹ Preliminary; changes for consumer prices based on data through November.

² Includes only prices for direct consumer purchases of energy for the home and for motor vehicles.

³ In both the table and the text, "home purchase and finance" consists of home purchase and financing, taxes, and insurance on owner-occupied homes.

⁴ Gasoline and oil, fuel oil and coal, and electricity and gas.

Note.—Fixed-weight price indexes are preliminary and subject to revision.

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

It is difficult to ascribe the acceleration of these measures at the beginning of 1980 to any single factor. It is likely that the most important cause was the pass-through of oil-price increases into other commodities. About half of all oil is used in the production and distribution of other goods and services. Oil-price increases therefore must eventually be reflected in final product prices. Similarly, as described below, the rapid advance in unit labor costs during 1979 and 1980 exerted further upward pressures on prices. Finally, the latter part of 1979 and the early months of 1980 saw an upsurge in expectations about inflation and an upsurge in consumer buying. In such an atmosphere business may well have raised prices ahead of increases in costs. The relative improvement in the underlying rate following the spring's decline in demand offers some support for this view.

Prices of Energy, Food, and Housing

The measures of the underlying rate of inflation omit the primary sources of month-to-month variability in consumer prices. In particular, half of the CPI is accounted for by energy, food, and home purchase and finance. And 1980 saw very volatile movements in these prices.

Energy. Energy prices as measured by the CPI, which had climbed at a 55 percent rate in the 6 months between March and September

1979, slowed to a 19 percent annual rate in the last months of that year. During the fall of 1979 the Organization of Petroleum Exporting Countries (OPEC) announced an increase in the price of Saudi Arabian light crude oil of \$6.00 per barrel. That was followed by a series of \$2.00 per barrel increases in January, April, and August. These price increases were accompanied by the phased decontrol of domestic crude oil prices, which had begun in June 1979. The effect of these actions was a burst of price increases for oil products during the first 3 months of 1980, averaging an annual rate of almost 100 percent. Gasoline, for instance, which was priced at \$1.04 per gallon in December, moved up to \$1.23 per gallon in March. Similar increases were registered in other oil-related energy components of the CPI, in particular home heating oil.

By the second quarter the burst of OPEC-related energy price increases began to play itself out. In the 5 months between May and October 1980 the energy component of the CPI grew at an average annual rate of just 1.7 percent. This was in quite marked contrast to the 40.4 percent average annual rate of increase experienced over the prior 5 months. By November gasoline was actually 0.8 cents per gallon lower than it had been in March, and heating oil was up only 1.9 cents during the same period. Thus, although the energy sector spent the year in the limelight, it was a major *direct* source of inflation only in the first quarter of the year.

Food. Food prices in the CPI increased 10.6 percent in the 12 months ending November 1980, as compared with a 9.8 percent rise over the previous 12 months. The farm value of food increased nearly 15 percent over the period. Marketing costs increased about 9 percent.

Over the course of 1980 the food price situation was quite volatile. During the first half, food prices increased less than 5 percent at an annual rate. During the second half, however, the rate of increase more than doubled. Recession-induced weakness in demand during the spring, followed by drought during the summer growing season, contributed to the acceleration in monthly food price movements. Prices of retail meat, which accounts for nearly 30 percent of all food spending at home, actually fell at an annual rate of 11.8 percent during the first half, and rose at a rate of 35 percent from June to November.

The extended period of very hot and dry weather damaged crops in the Southwest (cotton, soybeans, sorghum, and peanuts) during the early summer. The adverse weather conditions persisted and moved north and east affecting the corn crop and meat production in July and August. As the summer progressed the full extent of the

crop damage became evident. Prices received for the major crops increased 20 to 30 percent during the second half of 1980.

Housing. The home purchase, finance, insurance, and taxes component of the CPI is a matter of controversy. Ideally, a cost-of-living index should reflect the cost of shelter services provided by owner-occupied houses. For rented houses, this is precisely what is captured by market rents. Under current practice, however, the home purchase and finance component of the CPI in effect treats the purchase of a house as it would any ordinary good. But houses do not only provide shelter; they are also assets which yield a return. As a consequence, the movement of house prices reflects not only the cost of shelter but also the value of the investment. Since the CPI also assumes that part of the mortgage used to finance a house is "purchased," the confounding of consumption and investment considerations is exacerbated by the treatment of mortgage interest costs. The Bureau of Labor Statistics (BLS) has been concerned for some time with the adequacy of the homeownership component of the CPI. BLS, in fact, currently publishes several experimental indexes based on alternative treatments of homeownership.

For the present, at least, the CPI tends to overstate the importance of home purchase and finance and, given the volatility of mortgage rates, to produce startling monthly variations in the CPI. During the first 6 months of 1980 the home purchase and finance component of the CPI increased at a 27.6 percent rate, adding about 3 percentage points to the annual rate of inflation over the period. In July and August the fall in mortgage rates dominated the index. The home purchase and finance component fell at an annual rate of over 25 percent in July, and this decline was large enough to offset the increase in the other components of the index, resulting in an unchanged CPI from June to July. While this zero change in prices was widely regarded as a statistical anomaly, it was no more or less anomalous than the inflationary influence that the home purchase and finance component had imparted to the CPI throughout the first half of the year. This influence began to be felt again during the late fall and early winter as mortgage rates climbed to near their spring peaks. The home purchase and finance component promises to have a heavy impact on the CPI in the early months of 1981.

WAGES, PRODUCTIVITY, AND INCOME SHARES

As discussed in Chapter 1, the primary goal of anti-inflation policy during 1980 was to prevent the increase in oil prices from becoming a stimulus to higher wage settlements. The policy was motivated by the facts that the long-term behavior of prices of goods and services closely reflects the behavior of business costs and that wages, salaries, and fringe benefits account for roughly two-thirds of the total

costs of production. The evidence suggests that while the policy was partially successful, it was not able to prevent an acceleration of wages. As shown in Table 20, all measures of labor compensation accelerated between 1979 and 1980 to a level of about 9 or 10 percent. The largest wage gains were in manufacturing, where average hourly earnings grew 10.8 percent over the 12 months ending in December 1980. The smallest gains were in the construction industry (7.2 percent over the same period).

TABLE 20.—*Measures of compensation and employment costs, 1977–80*

[Percent change, third quarter to third quarter]

Measure	1977	1978	1979	1980
Average hourly earnings index.....	7.4	8.3	8.0	9.2
Compensation per hour ¹	7.5	8.6	9.6	10.0
Employment cost index ²	7.2	8.0	7.7	9.4
Union.....	7.7	7.9	8.4	10.9
Nonunion.....	6.9	8.0	7.3	8.6
Union wage changes (total effective adjustment).....	8.6	7.9	8.7	9.1
Adjustment resulting from:				
Current settlement.....	3.5	2.1	2.8	3.4
Prior settlement.....	3.3	3.5	3.1	3.2
Escalator provision.....	1.7	2.2	2.8	2.5

¹ Data are for private nonfarm business sector, all persons.

² Changes are from September to September.

Source: Department of Labor, Bureau of Labor Statistics.

Although acceleration in wages, salaries, and fringe benefits seems to have taken place in both union and nonunion sectors, union wage gains continued to exceed nonunion wage gains. Uncertainty exists as to whether or not these results reflect the relative bargaining strength of union over nonunion workers, as well as the extent to which they mirror conditions specific to individual industries. These differentials may also result from the more prevalent use of cost-of-living adjustments (COLAs) in union contracts. To the extent that inflation is unanticipated, workers under contracts with COLAs will tend to receive larger wage settlements than those without COLAs. For this reason, sudden increases in inflation rates may tend to widen union-nonunion wage differentials. Finally, the 1980 wage differentials may result from the fact that a number of important unions were able to maintain wage gains even though aggregate labor markets were slack. Major contracts were settled in 1980 in the aerospace, steel, telephone, and clothing and apparel industries.

Despite the step-up in nominal wage increases, real wages continued to fall throughout 1980. However, as was pointed out in last year's *Report*, customary calculations of the real wage which use the CPI can be deceptive. Table 21 sets forth several calculations of real wage change utilizing alternative price indexes.

The additional cost of imported energy was a major factor in real wage declines in 1980, as it was in 1979. Increases in the price of

imported energy eventually will reduce real incomes in the United States. This reduction must be achieved by some combination of price inflation, wage moderation, or shrinking profit shares. Wage bargaining aimed at preventing this can only transform the adjustment into a more inflationary one.

TABLE 21.—*Alternative measures of changes in real earnings per hour, 1978–80*
[Percent change, fourth quarter to fourth quarter]

Item	1978	1979	1980 ¹
<u>Average hourly earnings index</u>			
<u>Deflated by:</u>			
Consumer price index (CPI)	–0.5	–4.3	–2.6
CPI with rent substituted for home-ownership .....	.6	–2.3	–1.1
CPI with rent substitution and excluding energy .....	.6	.1	–.2
Fixed-weight price index for personal consumption expenditures (PCE) .....	.2	–1.9	–1.1
Fixed-weight price index for PCE excluding energy .....	.2	.4	–.2
<u>Compensation per hour ²</u>			
<u>Deflated by:</u>			
Consumer price index (CPI) .....	.1	–2.7	–2.5
CPI with rent substituted for home-ownership	1.2	–.9	–.8
CPI with rent substitution and excluding energy	1.2	1.6	.9
Fixed-weight price index for PCE .....	.8	–.5	–.8
Fixed-weight price index for PCE excluding energy .....	.8	1.9	.8

¹ Preliminary; CPI for fourth quarter 1980 based on data through November.

² Data are for the private nonfarm business sector, all persons. Changes for 1980 are third quarter to third quarter.

Note.—CPI for all urban consumers used.

Fixed-weight price indexes are preliminary and subject to revision.

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

Incomes policies can help to moderate the inflationary response to an oil-price increase, but only if business and labor cooperate to achieve the necessary adjustment. Such a willingness supported the Council on Wage and Price Stability (CWPS) standards program through its first year, 1979. In that year, as was noted in the last *Report*, evidence suggested that the standards had helped to restrain wage inflation by 1 to 1½ percentage points. Since there was no evidence of widening profit margins, it appears that the CWPS program contributed to smoothing the adjustment to higher oil prices. While there is evidence that cooperation with the standards was also high in its second year, a combination of several program features seems to have reduced but not eliminated its impact. A widening of the allowable range of wage increase and an undervaluation of cost-of-living adjustments in multiyear contracts were important factors.

Productivity

Productivity growth continued weak in 1980, advancing a tiny 0.1 percent over the year ending with the third quarter. In 1979 private nonfarm business productivity had declined 1.1 percent.

During the course of 1980 productivity growth fluctuated sharply. In the first quarter productivity was essentially unchanged. With the

sharp decline in output in the second quarter, productivity declined at a rapid 3 percent annual rate. This marked the seventh consecutive quarterly drop. With the resumption of modest economic growth in the third quarter, productivity rebounded sharply, rising at a 4 percent rate.

The faltering productivity during the first half of 1980, combined with a more rapid rise in wages, resulted in an acceleration in unit labor costs. However, with the improvement in productivity in the third quarter, the increase in unit labor costs moderated substantially. For the year ending with the third quarter, unit labor costs rose 10 percent, a modest improvement from the increase recorded during 1979.

Distribution of National Income

The recession's impact was evident in the shifting distribution of national income during 1980 (Table 22). Compensation of employees, which had averaged 74.6 percent of national income over the years 1976-79, rose to 75.3 percent in 1980. This increase in the share of national income going to wage earners is the normal pattern in a recession. Employer contributions for social insurance continued to account for a growing share of the compensation total. Corporate profits and proprietors' income as a share of national income fell sharply to 14.8 percent in 1980, down from the 17.1 percent average share during 1976-79. The corporate profits share fell to 8.6 percent. The unusually high level of interest rates was responsible for boosting the net interest share of national income to 8.5 percent, its highest level in the postwar period. Net farm income fell in 1980 from its relatively high level in 1979. After adjusting for changes in inventory, net income from farming was about \$24 billion for the

TABLE 22.—*Shares of national income, 1976-80*

[Percent of total]

Item	1976	1977	1978	1979	1980 ¹	Third quarter	
						1979	1980
Compensation of employees	75.1	74.5	74.5	74.4	75.3	74.3	75.3
Wages, salaries, fringe benefits, and other	70.0	69.4	69.2	69.0	69.8	68.9	69.8
Employer contributions for social insurance	5.1	5.1	5.3	5.4	5.5	5.4	5.5
Proprietors' income ²	6.8	6.7	6.7	6.7	6.2	6.7	6.1
Nonfarm ²	5.4	5.5	5.2	5.1	5.1	5.2	5.1
Farm ²	1.4	1.2	1.5	1.6	1.1	1.5	1.0
Rental income ³	1.7	1.6	1.6	1.6	1.5	1.5	1.5
Corporate profits ²	10.0	10.7	10.6	10.0	8.6	10.0	8.4
Net interest	6.3	6.5	6.6	7.3	8.5	7.4	8.7

¹ Preliminary.

² With inventory valuation and capital consumption adjustments.

³ Rental income of persons, with capital consumption adjustment.

Note.—Quarterly figures based on seasonally adjusted data.

Detail may not add to 100 percent because of rounding.

Source: Department of Commerce, Bureau of Economic Analysis.

year, 23 percent lower than in 1979. Net cash income, the cash available to farmers for capital expenditures and operator income, was less affected and fell about 6 percent. The deceleration in cash receipts for livestock and continued inflation in farm production expenses were the principal factors in the decline.

ECONOMIC POLICY

As in 1979, economic policy in 1980 aimed at stemming an acceleration in prices and wages. Both fiscal and monetary policy sought to restrain aggregate demand. As noted above, these policies were supplemented by a program of voluntary standards for wage and price behavior.

Fiscal Policy

Changes in the high-employment surplus (HES) are a useful measure of discretionary fiscal policy. The actual Federal budget deficit is affected not only by changes in discretionary policy, such as changes in tax rates or more rapid spending on defense programs, but also by the state of the economy. In particular, cyclical swings in incomes and employment affect tax receipts. Outlays for such programs as unemployment compensation and food stamps are similarly affected. These changes in receipts and outlays alter the budget deficit without any action by the Congress or the President. Thus, the actual surplus or deficit is a poor measure of discretionary fiscal policy. The HES measures what the surplus would be if the economy were at high employment. By evaluating the budget at a standard level of GNP, the measure abstracts from those changes in budget receipts and outlays that result from cyclical changes in GNP.

The High-Employment Budget. When judged by this measure, discretionary fiscal policy remained tight in 1979. The high-employment surplus increased \$13.5 billion in 1979 (Table 23). The chief factors in the tightening were the sluggish pace of outlay growth during 1979 (particularly for grants-in-aid), the inflation-induced increases in personal income taxes, and legislated increases in social insurance taxes. Over the 4 quarters of 1980, however, the HES fell by \$6.8 billion. Two unusual factors were responsible for the apparent move toward expansion during 1980. First, the delayed effect on individual tax refunds and final settlements from the Revenue Act of 1978 lowered the HES by roughly \$8 billion, starting in the first quarter of 1980. Second, due to large increases in interest outlays caused by

record high interest rates during the year, *discretionary* outlay changes appear larger than they actually were. By convention, interest payments are unadjusted in the calculation of high-employment outlays. In other words, high-employment interest payments are defined to be equal to actual interest payments. Thus, the high-employment surplus tends to understate the degree of discretionary fiscal restraint when interest rates increase, and vice-versa. Excluding these two factors, the high-employment budget surplus actually tightened by roughly \$10 billion over the 4 quarters of 1980.

TABLE 23.—*Actual and high-employment Federal receipts and expenditures, national income and product accounts, calendar years 1973-80*

[Amounts in billions of dollars; quarterly data at seasonally adjusted annual rates]

Calendar year or quarter	Actual				High-employment ¹			
	Receipts	Expenditures	Surplus or deficit (—)		Receipts	Expenditures	Surplus or deficit (—)	
			Amount	Percent of GNP			Amount	Percent of GNP ²
1973	258.6	264.2	—5.6	—0.4	252.7	264.0	—11.3	—0.9
1974	287.8	299.3	—11.5	—0.8	296.9	297.6	—0.7	—0.1
1975	287.3	356.6	—69.3	—4.5	315.8	344.9	—29.1	—2.2
1976	331.8	384.8	—53.1	—3.1	354.7	374.8	—20.1	—1.5
1977	375.1	421.5	—46.4	—2.4	390.7	413.8	—23.1	—1.6
1978	431.5	460.7	—29.2	—1.4	441.1	456.8	—15.7	—1.1
1979	494.4	509.2	—14.8	—0.6	504.2	506.5	—2.2	—0.1
1980 ³	538.9	601.2	—62.3	—2.4	573.2	591.6	—18.3	—1.2
1979:								
I	477.0	488.4	—11.5	—0.5	481.0	485.9	—4.8	—0.3
II	485.9	494.0	—8.1	—0.3	496.8	491.4	5.3	0.4
III	500.6	515.8	—15.2	—0.6	510.9	513.0	—2.1	—0.1
IV	514.0	538.6	—24.5	—1.0	528.3	535.5	—7.2	—0.5
1980:								
I	528.4	564.7	—36.3	—1.4	543.2	560.6	—17.4	—1.1
II	520.9	587.3	—66.5	—2.6	556.6	577.9	—21.3	—1.4
III	540.8	615.0	—74.2	—2.8	581.8	602.5	—20.7	—1.3
IV ⁴	565.4	637.9	—72.5	—2.6	611.2	625.3	—14.0	—0.9

¹ These totals differ from those published in the November 1980 *Survey of Current Business* because of revisions to both actual and potential GNP. For more information on these revisions, see the supplement to this chapter.

² High-employment surplus or deficit as percent of high-employment gross national product.

³ Preliminary.

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

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

Budget Outlays and Receipts. Federal budget outlays for fiscal 1980 were \$579 billion, an increase of \$85 billion, or 17 percent over the fiscal 1979 level. This marked acceleration in budget outlays was due largely to the combined impact of higher interest rates, growing unemployment, and increases in the cost of entitlement programs due to cost-of-living increases. Interest outlays jumped 23 percent in fiscal 1980, while outlays for income security and health, which include social security, unemployment insurance, and other major Federal entitlement programs, grew 19 percent. Together these three areas—health, income security, and interest—accounted for 61 percent of the change. In addition, defense outlays grew 17 percent in

fiscal 1980, up sharply from the 10 percent growth of the prior fiscal year.

Federal budget receipts rose by 12 percent compared to 16 percent during fiscal 1979. The recession-induced weakness in incomes and the delayed impact of the Revenue Act of 1978 on individual tax refunds and final settlements combined to produce this result. Individual tax receipts grew 12 percent in fiscal 1980, down sharply from the 20 percent fiscal 1979 gain. Corporate tax receipts fell 2 percent in fiscal 1980. The Federal budget deficit increased from \$28 billion in fiscal 1979 to \$59 billion in fiscal 1980.

Monetary Policy and Financial Markets

As discussed in Chapter 1, the Federal Reserve adopted a new procedure in October 1979 to guide its daily open market operations. Under the new procedure, designed to exert better control over the growth of the monetary aggregates, the Federal funds rate is allowed to vary over a much wider range. In a report submitted to the Congress in February 1980, the Federal Reserve set forth its objectives regarding increases in the money and credit aggregates during 1980 (Table 24). These ranges called for a deceleration in monetary expansion in 1980 from the preceding year.

TABLE 24.—*Growth in monetary and bank credit aggregates, 1979–81*

[Percent change]

Item	Actual		Federal Reserve longer-run ranges		
	1978 IV to 1979 IV	1979 IV to 1980 IV ¹	1979 IV to 1980 IV	1980 IV to 1981 IV	
				Unadjusted for nationwide NOWs	Adjusted for nationwide NOWs
M-1A.....	5.0	5.1	3½ to 6	3 to 5½	0 to 2½
M-1B.....	7.6	7.1	4 to 6½	3½ to 6	5 to 7½
M-2.....	8.9	9.6	6 to 9	5½ to 8½	5½ to 8½
M-3.....	9.8	9.7	6½ to 9½	6½ to 9½	6½ to 9½
Bank credit.....	11.5	≈7.8	6 to 9	6 to 9	6 to 9

¹ Preliminary.

* Estimate for fourth quarter 1980 based on November data.

Note.—M-1A is currency plus private demand deposits, net of deposits due to foreign commercial banks and official institutions.

M-1B is M-1A plus other checkable deposits (negotiable order of withdrawal accounts, accounts subject to automatic transfer service, credit union share draft balances, and demand deposits at mutual savings banks).

M-2 is M-1B plus overnight repurchase agreements (RPs) issued by commercial banks, overnight Eurodollar deposits held by U.S. nonbank residents at Caribbean branches of U.S. banks, money market mutual fund shares, and savings and small time deposits at all depository institutions.

M-3 is M-2 plus large time deposits at all depository institutions and term RPs issued by commercial banks and savings and loan associations.

Bank credit is total loans and investments plus loans sold at all commercial banks.

Source: Board of Governors of the Federal Reserve System.

Except for M-1B, the rates of growth of the various monetary aggregates during the year roughly matched or exceeded their 1979 pace. Some of the relative movements in the various monetary aggregates in 1980 were the result of special factors. At the beginning of the year the Federal Reserve had anticipated that funds attracted to

automatic transfer services (ATS) nationwide and negotiable order of withdrawal (NOW) accounts in the Northeast would cause M-1A to grow about one-half percentage point slower than M-1B. In fact, more funds flowed into these accounts from both regular savings accounts and demand deposits than was originally forecast. These developments boosted M-1B growth and lowered M-1A growth, each by about three-quarters of a percent relative to what they otherwise would have been.

For the year as a whole M-1B, M-2, and M-3 exceeded their target ranges while M-1A did fall within its range. However, if one adjusts the target ranges for M-1A and M-1B in light of the actual experience with NOW and ATS accounts, then both of these measures fall roughly at the upper end of the adjusted range.

Within the year, money growth, credit flows, and interest rates experienced unusually wide variations. The year began with money and credit demands apparently accelerating despite the sharp increase in interest rates in the fourth quarter of 1979. In February the growth of money and credit surged, boosting demand for reserves above the level consistent with the Federal Reserve's monetary growth ranges. The resulting pressures in money markets, combined with deteriorating inflationary expectations, forced both short- and long-term rates up sharply.

Data available in early March suggested that credit growth had not been deterred by the general monetary tightening and the sharp increases in interest rates. Moreover, the increasing speculative activity in financial and commodities markets raised concern among many in the financial community about the threat of a financial panic. Extraordinary measures were called for to dampen excessive credit demands, reduce the spiraling inflationary expectations, and ease the strains in financial markets.

On March 14 the President announced an extensive anti-inflation plan that included authorizing the Federal Reserve Board to implement certain types of credit controls under the provisions of the Credit Control Act of 1969. Operating under its own authority, the Federal Reserve also introduced a voluntary credit restraint program and tightened some already existing regulations, as detailed below. Taken together, the credit restraints were intended to reinforce traditional monetary policy measures that control overall money and credit growth while limiting the burden on certain sectors hard hit by high interest rates. Those sectors included small businesses, farmers, home buyers and builders, and auto dealers and purchasers.

The measures were designed to restrain the growth of certain types of consumer credit as well as those liabilities of large banks that had been used to support a rapid buildup in business loans. These

actions included: (1) a requirement that all types of lenders maintain on deposit at a Federal Reserve Bank a certain percentage of increases in credit card lending and other categories of unsecured consumer credit; (2) an increase in the marginal reserve requirement on managed liabilities—including large time deposits (\$100,000 or larger) with maturities of less than a year, Eurodollar borrowings, and security repurchase agreements—of large member banks and U.S. branches and agencies of large foreign banks; (3) an extension of special deposit requirements to increases in managed liabilities of large nonmember banks and to increases in total assets of money-market mutual funds; and (4) a surcharge of 3 percentage points on frequent borrowing by large member banks from Federal Reserve Banks. In addition, the Board announced a voluntary program under which commercial banks and finance companies would limit the growth in total loans to U.S. customers to 6 to 9 percent for the period from the fourth quarter of 1979 to the fourth quarter of 1980.

Expansion of credit and money slowed abruptly after these measures were announced. The reaction of financial institutions, households, and businesses was sharper than anticipated. Banks and other financial institutions responded by accelerating and intensifying measures to restrict credit availability already in train; consumers and business sharply altered their credit behavior. Credit card sales and applications dropped off abruptly in March. Consumer installment credit outstanding declined in April for the first time in 5 years. Commercial bank lending to businesses moderated in March and then declined for the next 3 months. Over this same period the pace of monetary expansion slowed. During April all the monetary aggregates actually fell below their target ranges. The narrower aggregates declined for the second quarter as a whole.

As evidence mounted that credit growth had been arrested, the Federal Reserve began to relax various provisions of the program. In early July the Board ended the program entirely, and the President revoked the Board's authority under the Credit Control Act.

In retrospect, it appears that another factor contributing to the abrupt decline in credit growth was that interest rates finally had reached levels in late February and early March which were sufficient to discourage borrowing. However, data available at the time did not show this development. For example, business loans at large banks had increased rapidly from December to mid-February, in part due to borrowing in anticipation of the rumored adoption of credit controls, but in late February and early March business borrowing from these large banks stagnated—a pattern that could not be discerned until late March. Similarly, new home sales fell slightly in February and

plunged in March, although the only information available in early March had shown that sales advanced in January.

The mid-March announcement of credit controls did not immediately break the upward spiral in interest rates. In late March and early April the Federal funds rate came within a few basis points of 20 percent, and rates on most short-term and long-term market instruments rose to record highs before falling sharply over the course of the second quarter. The Federal funds rate fell faster than other short-term market rates from April to mid-June, but the funds rate then stabilized for the next 2 months at around 9 percent. During this period there were occasions when the Federal Reserve kept the Federal funds rate from falling below the $8\frac{1}{2}$ percent lower bound set in May by the Federal Open Market Committee. Longer-term rates also declined as the spiral of inflationary expectations apparently was reversed in light of the growing slack in the economy and the weakness in the monetary aggregates. Downward adjustments in administered rates, like the prime rate and home mortgage rates, lagged the declines in market yields.

The downswing in most interest rates ended in June and July as monetary aggregates accelerated and credit demands again surged. The Federal Reserve did not accommodate the strong demand for bank reserves associated with acceleration of the monetary aggregates through the summer and fall, and the rate of expansion of adjusted nonborrowed reserves slowed from 31 percent at an annual rate in the second quarter to 4 percent in the third. Meanwhile, between late August and early December the discount rate was raised in three steps to 13 percent, and the Federal Reserve reimposed an additional surcharge on frequent borrowings by large banks. The Federal funds rate increased to over 20 percent in December. Other short-term market rates followed this upward climb. The prime rate adjusted more rapidly on the upswing than it had when rates had come down earlier in the year. Long-term rates, responding once again to continued inflationary pressures, reached rates at the end of the year near or above their March-April peaks. In mid-December short-term interest rates reached new peaks and began to fall rapidly once again. By early January the commercial paper rate, for instance, had fallen $3\frac{1}{2}$ percentage points from its mid-December peak. Long-term interest rates fell about $1\frac{1}{4}$ percentage points over the same period.

The volatile movements of the narrow monetary aggregates over the course of the year reflected in part the pattern of economic activity. But the atypical behavior of the demand for money during 1980 also contributed to this volatility. As noted in Chapter 1, the demand for money—which is used by economists to characterize the relation-

ship among money, interest rates, and economic activity—has shown a tendency toward abrupt shifts in recent years. In particular, such shifts in 1975 and in 1976 led to monetary growth in the narrower aggregates, M-1A and M-1B, that was well below that expected on the basis of the historical relationship between money, income, and interest rates. While not fully understood, such shifts have followed rapid increases in interest rates to record levels, which appear to induce firms and households to adopt cash-economizing financial innovations. (These were discussed in detail in the 1978 *Report*.)

In the second quarter of 1980 another shift in money demand apparently took place. Declines in M-1A and M-1B were greater than would have been expected even in the face of the sharp fall-off in economic activity and high interest rates. But the current episode appears to differ somewhat from the previous shifts in that this time the shift was largely offset in the subsequent 2 quarters. This offset suggests that some special factors may have been at work. One hypothesis is that the imposition of credit controls may have temporarily led holders of currency and demand deposits to draw down these balances in the second quarter. With the end of the controls program in July this temporary depressant disappeared, and households were able to rebuild their cash balances. Whether this explanation is correct or not, it seems likely that a temporary money-demand shift contributed to the pattern of a decline in the money supply in the second quarter followed by an unusually rapid money growth in the second half of the year.

Thrift Institutions. In the first quarter of 1980, deposit flows to thrift institutions—mutual savings banks and savings and loan associations—slowed to the lowest rate since the fall of 1974. But after market interest rates peaked in late March and early April thrift deposits once more began to expand at the healthier pace registered in the preceding year. From December through April the decline in thrift deposit flows was softened by an inflow of funds attracted to the variable rate instruments offered to savers—the 6-month money market certificates (MMCs) and the new 2½-year small saver certificates (SSCs). For the next 5 months, however, there were net withdrawals of MMCs as depositors shifted funds into the higher yielding SSCs. From April to July funds were also shifted into money market mutual funds, where the technical method for calculating return gave these funds a temporary yield advantage over MMCs. By October MMCs had resumed healthy expansion, and for the first 11 months of the year MMCs and SSCs at thrift institutions together grew by \$115 billion.

The other major sources of funds for thrifts also had interest costs tied to market rates. Members of the Federal Home Loan Bank

(FHLB) System increased their borrowing from the FHLB by over \$7 billion to a level of about \$47 billion. Many large institutions also augmented their small-account deposit flows by issuing "jumbo" (\$100,000 or larger) certificates of deposit. Small denomination accounts with interest rates fixed by regulation experienced net withdrawals throughout the year. By the end of 1980 these fixed-ceiling deposits accounted for just over half of total thrift deposits, compared to roughly two-thirds at the end of 1979.

While the new deposit instruments and FHLB borrowings helped the thrifts sustain asset growth by allowing them to compete for funds at market interest rates, this new-found competitive status was achieved at considerable peril to the short-run profitability of these institutions. For much of last year the interest cost on such funds was well above the return on the longer-term asset portfolios, thereby depressing thrift industry profits.

In an environment of growing uncertainty regarding the direction of interest rates and their ability to sustain deposit flows, thrifts apparently became somewhat more cautious in their asset management in early 1980. When high interest rates curtailed deposit inflows in earlier cycles, thrifts generally sustained their mortgage lending activity by selling off their liquid asset portfolios. From March to May 1980, however, savings and loans (S&Ls) reduced their home mortgage commitments at a record rate but continued to acquire liquid assets. The percentage of assets held by insured S&Ls in liquid instruments actually increased over most of 1980—an unprecedented development in a period of weak deposit flows.

Home mortgage commitments rebounded sharply from June through September following the declines in interest rates and the resumption of deposit flows. In the fourth quarter commitments fell off slightly as rising mortgage interest rates once again led to a reduction in housing sales.

Credit Flows. Credit extended to the nonfinancial sectors of the economy during the first 3 quarters of 1980 was well below the pace of the preceding year, even though Federal borrowing doubled. Funds raised by private nonfinancial borrowers (including State and local governments) plummeted in the second quarter in the face of high costs, restricted credit availability, and the recession-induced reduction in demand. While private credit flows rebounded somewhat in the third quarter, they continued to lag behind the 1979 pace.

The household sector experienced the sharpest reduction in borrowing during 1980. In late 1979 the ratio of consumer installment and mortgage credit repayments to disposable personal income—a common measure of the burden of household debt—reached its historical peak. Thereafter, the rate of increase of these household debt

categories gradually abated through the first quarter of 1980. As reported earlier, the credit controls program induced consumers to reduce their installment debt sharply in the second quarter, and their rate of mortgage borrowing nearly halved. Even with some recovery of borrowing in the third quarter, required household debt repayments as a percent of disposable personal income continued to fall throughout 1980. At year-end this measure of household debt burdens was well below the mid-1979 peak. Moreover, real financial net worth per capita rose over the year. Taken together, these trends suggest that the household debt burden may not be as serious a constraint on consumer spending in 1981 as it was in late 1979 and 1980.

Borrowing by nonfinancial businesses followed a pattern similar to that of the household sector, though not as severe. Second quarter borrowing fell much more sharply than the decline in the financing gap (the excess of capital expenditures, including inventory accumulation, over internally generated funds), as businesses liquidated some of the short-term assets built up over the previous 3 quarters. In the third quarter businesses once again began to increase their liquid asset portfolios, and corporate borrowing increased despite a further reduction in the financing gap. Corporations took advantage of the precipitous drop in long-term rates in May and June by issuing a record volume of long-term bonds, but when long-term rates moved upward later in the summer they returned to short-term credit expansion to meet their financing needs.

The liquidity positions of nonfinancial corporations have deteriorated significantly since 1976, when the ratios of liquid assets and long-term debt to short-term debt reached their cyclical highs. By the end of the second quarter of 1980 the corporate liquidity ratio (liquid assets relative to short-term debt) had reached an all-time low, and long-term debt as a percent of total debt was considerably lower than the previous low reached in early 1975. Historically, businesses have tended to restore their liquidity and move to a healthier balance in their liability structures near the end of recessions, when reduced credit needs and lower long-term rates allow them to liquidate their short-term borrowing and extend the maturity of their liability structure. This time, however, the sharper-than-usual increases in interest rates have attenuated this normal restructuring process and threaten to induce further deterioration of the financial health of corporations in 1981.

THE PROSPECTS FOR 1981 AND 1982

In 1981 the economy should continue its modest recovery from the 1980 recession. Real growth is projected to be about $1\frac{3}{4}$ percent over the 4 quarters of the year, with virtually all of it coming in the last 2 quarters. Although both employment and the labor force are expected to rise about $1\frac{1}{2}$ million during the year, the labor force gain is likely to be a shade larger. In consequence, the unemployment at year-end 1981 is anticipated to be slightly above its current level. The overall rate of inflation is forecast to be little changed from its 1980 pace. Given public concern with inflation, both fiscal and monetary policy are expected to be a restraining influence on economic activity in 1981 and beyond. However, there is both need and room for a prudently designed tax cut which would be phased in gradually over the next 2 years.

Over the 4 quarters of 1982 real growth is expected to be $3\frac{1}{2}$ percent, with the proposed tax cuts providing significant stimulus. The somewhat faster pace of economic activity should yield employment gains of roughly 2 million during the year. The unemployment rate is expected to decline gradually throughout 1982. The continued moderation in economic activity is projected to produce a slowing in the overall rate of inflation of about $1\frac{1}{2}$ percentage points during 1982.

FISCAL POLICY

The forecast presented below is based on the economic policy measures described in the 1982 budget. In fiscal 1981 Federal outlays are projected to be \$662.7 billion. This amounts to a 14 percent increase, a slowdown from the 17 percent growth in fiscal 1980. A further slowdown is projected in fiscal 1982, with outlays rising 12 percent to \$739.3 billion. Most of the increase in Federal outlays over the 2 years stems from the effects of inflation. Adjusted for inflation, total outlays will increase about 2 percent, with sizable real gains in defense spending partially offset by declines in nondefense spending.

In fiscal 1981 receipts are projected to be \$607.5 billion, rising to \$711.8 billion in fiscal 1982. Both these receipts, and to a lesser extent expenditures, reflect the President's proposed Economic Revitalization Program (ERP), designed to moderate the rise of tax burdens and provide incentives for business capital investment. The budget cost of the program is \$3.3 billion in fiscal 1981, rising to \$22.5 billion in fiscal 1982. The fiscal 1982 budget also includes a proposal to increase the Federal tax on motor fuels by 10 cents per gallon on June 1, 1981. Thereafter, the tax per gallon would increase with inflation. The proposed increase in the motor fuels tax is expected

to yield approximately \$13 billion in fiscal 1982 and larger amounts thereafter.

The tax reductions embodied in the ERP will not totally offset increases in other taxes. Social security taxes, the windfall profits tax on oil company revenues, and inflation-induced increases in personal taxes will combine with the proposed motor fuels tax and withholding of tax on interest and dividends to produce a rising tax burden in 1981 and 1982 despite the ERP. In addition, even with the budgeted acceleration in defense spending and continued increases in interest outlays, overall growth in Federal spending will be relatively modest in real terms. Thus, the high-employment surplus is expected to increase substantially in both 1981 and 1982, helping to moderate demand and lower inflation.

The Economic Revitalization Program

The major focus of the ERP is on increasing investment and encouraging innovation. Depreciation rules would be both liberalized and simplified under the plan. This would increase the rate of return on new investment and the cash flow of firms making investments. The program would also make the current investment tax credit (ITC) partially refundable. The ITC and accelerated depreciation proposals would be retroactive to January 1, 1981. These two proposals are explained in detail in Chapter 1.

To shift additional national resources into investment, a larger-than-usual share of the funds available for tax reduction will have to be devoted to investment incentives. But some other forms of tax relief are both feasible and desirable. The President's program proposes three principal areas of such relief. First, individuals and employers would receive an income tax credit sufficient to offset the rise in social security taxes which took place at the start of the year. This type of tax cut was chosen because it not only would reduce tax burdens but also lower business costs and thus help modestly with our inflation problem. Second, for workers who face a growing social security tax burden but earn too little to pay income taxes, the program would expand the earned income tax credit. This would more than offset the increase in social security taxes for our lowest-paid workers. Third, the program proposes a phased reduction in the tax burden on two-earner families by reducing the so-called "marriage penalty" that taxes married couples with roughly equal incomes at rates higher than unmarried couples with the same incomes.

These reductions in individual income taxes would not become effective until January 1, 1982. The program, as originally proposed in August 1980, had provided for implementation of these tax cuts immediately upon passage. The delay in the effective date is dictated by budgetary prudence and the desire to avoid rekindling inflationary

expectations. Of course, if the economy should weaken seriously during 1981, the Congress would have reason to advance the effective date of these tax cuts.

MONETARY POLICY

In July 1980 the Federal Reserve tentatively set its monetary aggregate growth target ranges for the period from the fourth quarter of 1980 to the fourth quarter of 1981 generally one-half percentage point below the previous year's targets (Table 24). As discussed in Chapter 1, this reduction is intended to provide sustained monetary restraint consistent with an eventual return to price stability. There is little doubt that these target ranges will restrain the economy in 1981, but the amount of that restraint is less certain.

A rough method of assessing the restrictiveness of monetary policy in the period ahead is the increase in velocity implied by keeping monetary growth within the target ranges while still supporting expansion of nominal GNP sufficient to permit a modest recovery from the 1980 recession. Given the likelihood that inflation will sustain considerable momentum over the year, the implied increases in the velocities of the key monetary aggregates are well above the long-term historical averages. Historically, such large increases in velocity have been associated with a substantial rise in interest rates, a rise that could threaten the prospects for a moderate economic recovery in 1981.

Several potential developments during 1981 could alter the degree of monetary restraint implied by the money growth targets. First, as discussed earlier, in 1975 and 1976 there were sizable shifts in the demand for money in a direction that tended to increase velocity and thus accommodate more nominal GNP growth for a given monetary growth. One factor thought by many to be associated with the earlier shifts—a rapid runup in interest rates piercing previous peak levels—occurred in late 1980. While a money-demand shift cannot be predicted with any confidence for 1981, the possibility that another shift may materialize raises the difficulty of interpreting the degree of restrictiveness of the money growth ranges.

In addition, the introduction of NOW accounts on a nationwide basis in January will alter to some degree the relationships among the various aggregates and their relationship to economic activity. Shifts out of demand deposits into NOWs will depress the rate of growth of M-1A. On the other hand, NOW accounts probably will attract some savings deposits and other interest-bearing deposits, thereby boosting M-1B. The degree of the shift into NOW accounts will depend on the aggressiveness with which depository institutions price these new instruments and promote them, as well as on the public response. Partly on the basis of NOW account growth in New

England, the Federal Reserve has adjusted the midpoints of the target ranges for these narrow aggregates in an attempt to account for these structural changes (Table 24). But whether the adjusted targets will in fact yield the same degree of monetary restrictiveness in 1981 as the announced unadjusted targets would have yielded in the absence of nationwide NOWs is unknown.

Shifts into NOWs from demand and most interest-bearing deposit categories at banks and thrifts will have no impact on the rates of expansion of M-2 and M-3. However, other financial developments could influence their growth patterns. In particular, there is considerable uncertainty about whether money-market mutual funds and the variable rate SSCs—both of which are included in M-2 and M-3—will continue their unusually rapid growth in 1981. There is also uncertainty as to whether these instruments will draw funds from deposit categories in M-2 and M-3 or from sources not included in these broader aggregates.

Finally, several technical problems associated with the Monetary Control Act of 1980 will confront the Federal Reserve in 1981, further complicating the implementation of monetary policy. As discussed in Chapter 2, the act requires a sweeping restructuring of reserve requirements and extends both reserve requirements and access to the discount window to nonmember banks and thrift institutions. It will take some time for these institutions to develop a stable pattern of reserve management and borrowing behavior. During this transition period the Federal Reserve will find it more difficult than usual to predict borrowings, excess reserves, and other reserve measures. Thus, the relationship between reserves and money, which is the key to controlling money growth, will probably be less certain during 1981 and perhaps over a longer period.

In the face of all these technical difficulties and uncertainties, the danger in rigidly keeping the growth of M-1A, M-1B, or any single monetary aggregate within a narrow preset range regardless of other developments is obvious. With the long-run monetary growth ranges for 1981 already implying considerable tightness, there is a great risk that developments unrelated to the basic course of economic activity could artificially boost the growth rates of some of the aggregates and induce excessive monetary stringency. The Federal Reserve has attempted to account for the structural changes by adjusting the ranges for the narrow aggregates. Another option could be to place more emphasis on the broader aggregates like M-2, which are unlikely to be so greatly affected by the structural changes. An additional adjustment that would reflect the greater uncertainty of financial relationships in 1981 would be to widen the limits of the longer-run ranges.

The uncertainty of developments in 1981 calls for flexible response on the part of monetary policy. Since the Federal Reserve began announcing its longer-run targets in 1975, it has been understood that "The longer-run ranges will be reconsidered as conditions warrant." In 1981, this statement assumes even greater importance than usual.

WORLD AND DOMESTIC OIL MARKETS

As has been the case in the recent past, developments in world oil markets will continue to influence U.S. inflation and growth. World oil demand is likely to remain weak during 1981 due to the sluggish pace of economic activity in the industrialized nations and the continued adjustment to 1979's rapid increase in oil prices. In addition, oil inventories, which prior to the outbreak of the war between Iran and Iraq were very high by historical standards, may still insulate the consuming nations from limited supply disruptions. Nevertheless, even with these elements tending to limit price pressures, the price of imported oil is expected to increase somewhat faster than inflation in 1981 and 1982.

Decontrol of U.S. oil prices will bring still sharper increases in domestic oil prices during 1981. In November 1980 the average price of domestic oil was about \$28 per barrel. That price will rise to the world market level by October 1981, at which time the price is expected to be in the neighborhood of \$40 per barrel.

The total burden to U.S. consumers of the relative price increases in oil during 1981 is expected to reach about \$30 billion by the end of the year. The bulk of this will go to the Federal Government in the form of higher receipts from the windfall profits tax and increased revenues from corporate taxes on the profits of oil companies. This increase in Federal revenues is one source of the estimated increase in the high-employment surplus during 1981. Of the remaining total, roughly \$3 billion will accrue to foreign producers and about \$8 billion to domestic producers. Some small fraction of these amounts will be respent in the United States in 1981, but the economic drag caused by the increase in oil prices during 1981 will still amount to roughly \$10 billion.

THE ECONOMIC FORECAST

The economy has now experienced 2 quarters of moderate real growth following the sharp decline in the second quarter of 1980. At the same time there was a rapid runup in interest rates through mid-December. While significant declines in interest rates were recorded thereafter, the effects of taut financial conditions during 1980 are likely to weaken the pace of recovery during the first half of 1981. These weak conditions should be particularly evident in housing and in spending for consumer durables. Overall, it is likely that real GNP

will be essentially flat in the first half of the year, with a distinct possibility of 1 quarter of actual decline.

After midyear the pace of activity should pick up, although by historical standards growth will remain modest for a period of recovery (Table 25). The restrictive stance of monetary and fiscal policy will contribute to this result. In addition, consumers' real incomes will be restrained by rising oil prices. Over the 4 quarters of 1981 the combination of fiscal and oil-price imposed restraint is estimated to rise by about \$60 billion, or 2 percent of GNP.

TABLE 25.—*Economic outlook for 1981*

Item	1980 ¹	Forecast range 1981
Growth, fourth quarter to fourth quarter (percent):		
Real gross national product.....	-0.3	1½ to 2
Personal consumption expenditures.....	-3	1 to 1½
Nonresidential fixed investment.....	-6.0	1 to 1½
Residential investment.....	-17.6	6 to 7
Federal purchases.....	4.7	3 to 3½
State and local purchases.....	-3	-½ to 0
GNP implicit price deflator.....	10.0	10 to 10½
Compensation per hour ²	10.2	10½ to 11
Output per hour ².....	.2	½ to 1
Level, fourth quarter: ³		
Unemployment rate (percent).....	7.5	7½ to 7¾
Housing starts (millions of units) ⁴	1.56	1½ to 1¾

¹ Preliminary.

² Private nonfarm business, all persons. Changes for 1980 are fourth quarter 1979 to third quarter 1980 at annual rates.

³ Seasonally adjusted.

⁴ Annual rates. October-November average used for fourth quarter 1980.

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

As the economy moves into 1982 it should maintain the momentum of the last half of 1981. Business fixed investment is expected to be a particular source of strength because of the proposed tax incentives for capital spending.

Consumer Expenditures

Consumer spending in 1981 will be constrained by sluggish growth in after-tax income due in part to inflation-induced increases in effective personal tax rates and the step-up in social security taxes. Overall, real after-tax incomes will show only a very small gain. Rising energy prices will also continue to put pressure on consumer purchasing power. As a consequence, consumer spending is projected to grow less rapidly than real GNP during 1981.

Last year the personal saving rate rose somewhat, ending the year at 5¼ percent. Over the last 4 years the saving rate has averaged a shade under 5½ percent, roughly 2 percentage points below the average of the preceding 10 years. Nevertheless, the attempt to maintain living standards in the face of sluggish income growth is likely to

produce a slight decline in the saving rate during 1981. Despite this, real consumer purchases of goods and services are only projected to rise by slightly more than 1 percent over the 4 quarters of 1981.

Consumer spending is expected to be particularly sluggish in the first half of the year. Purchases of autos and other credit-sensitive goods are likely to be the most affected, leading to a decline in durables spending during 1981. In contrast, expenditures by consumers on both nondurable goods and services are projected to rise during the year. A somewhat healthier growth in real consumer spending should be evident in 1982 partly due to the gains in disposable incomes that will follow the personal tax cuts proposed for the start of that year.

Business Fixed Investment

Surveys of capital spending plans by business for 1981 are currently showing surprising strength. One private survey indicates that for 1981 as a whole real spending on plant and equipment will increase 2 percent. The most recent Department of Commerce survey is slightly less optimistic, suggesting that business plans to increase real investment outlays by about 1 percent. The year-over-year increase indicated by these surveys would involve vigorous gains in investment during 1981.

These surveys need to be interpreted with caution. Business spending plans tend to be revised downward when the economy weakens, as it is projected to do in the first half of 1981. Thus despite the surveys, some continued weakness is expected during the first half of 1981. However, business capital spending should begin accelerating in the second half of 1981. An important source of this growth will be the proposed liberalization of both depreciation allowances and the investment tax credit. These are assumed to go into effect in mid-1981, retroactive to the start of the year. But given the lags in the investment process, these tax incentives should have their major impact in 1982 and beyond. Indeed, real business capital spending during 1982 is expected to increase substantially faster than real GNP. One further reason for the strength in this sector is the marked increase in capital spending anticipated in the energy industry.

Housing

During the last several months of 1980 the short-term prospects for the housing market worsened somewhat. After the swift rebound during the summer, housing starts leveled off at roughly a 1.55-million unit annual rate for September through November. Many observers were surprised that housing starts were maintained at that level, especially in November, in light of very high and rising interest rates. Part of the explanation appears to be that multifamily starts—

which increased from September to November—were bolstered somewhat by Federal subsidy programs. Single-family starts declined during this period partly due to a reduction in the rate of new home sales in September and October, but sales unexpectedly turned up slightly in November despite a rise in mortgage rates to 14 percent and above.

The high mortgage rates that are likely to prevail during much of 1981 will delay any further rebound in homebuilding activity. At current interest rates, many potential home buyers—especially those looking for their first home—cannot afford the required monthly mortgage payments. Nevertheless, with the continued high rate of household formation by the postwar baby-boom generation and the tax advantages of homeownership, potential housing demand is quite strong. Moreover, new financing arrangements may help reduce the problems of affordability. Thrift institutions are now offering several versions of the graduated-payment mortgage and have begun to offer shared-appreciation mortgages in which the lender receives an equity interest in the house in exchange for lower mortgage rates. In addition, there have been reports of homebuilders offering to meet part of the buyer's monthly mortgage payments in exchange for a higher sales price.

These factors suggest that housing starts may fall somewhat during the first half of 1981 in response to high mortgage rates. But thereafter, growing housing demand and the further development of innovative financing arrangements should lead to some rebound in homebuilding even if interest rates remain high. By the end of 1981 housing starts are expected to be in the range of 1.5 to 1.7 million units, with further gains probable during 1982.

Inventories

As observed above, recent inventory behavior has been noteworthy for its relatively quick adjustment to changes in final sales. As a consequence, unlike previous periods of recession and recovery, there has been no major inventory cycle this time around. Over the coming months the sluggish pace of economic activity will create continued pressure for moderation in inventory accumulation. In addition, the current high level of interest rates provides an additional incentive to hold down inventories. This suggests that inventory investment will be quite modest in the first half of 1981 and should gradually gain thereafter, roughly in line with sales, as economic growth quickens.

The Foreign Sector

The pattern of economic growth projected for the other industrial countries is quite similar to the one projected for the United States: very slow growth in the first half of this year, followed by somewhat

more rapid growth thereafter. During this year and next, growth abroad is likely to average between 2 and 3 percent—roughly comparable to average growth in this country. As a result of this similarity in growth patterns, net exports are not expected to show major swings over the coming 2 years. From the fourth quarter of 1980 to the end of 1982 a modest decline in net exports—about \$2 billion in constant dollars—is projected. This decline will result primarily from a somewhat more rapid rise in import volumes than in export volumes, although neither of these is projected to grow very strongly. Some loss in U.S. competitiveness is implicit in these projections. American goods are likely to become somewhat more expensive in relation to foreign goods, both because of somewhat higher inflation in the United States and because of the strength of the dollar in foreign exchange markets. The strength of the dollar is likely to persist so long as interest rates in the United States remain high relative to interest rates abroad and if, as predicted, the U.S. current account remains in surplus. While the surplus is projected to diminish somewhat during the course of 1981 from the very high level reached in the second half of 1980, it should remain large through 1982 in the absence of any future oil-price shock.

Government Purchases

Real Federal purchases are projected to increase by about $3\frac{1}{4}$ percent during the course of 1981, and by a smaller amount in 1982. During both years real defense purchases are anticipated to increase substantially, offsetting projected declines in real nondefense purchases.

State and local government spending in real terms fell in 1980 and is forecast to decline again during 1981. The economy's sluggish growth, continued taxpayer resistance to new spending programs, and budget tightness will serve to hold down spending. With the resumption of healthier economic growth in 1982, State and local government purchases are expected to increase in real terms, although substantially more slowly than GNP.

Employment and Unemployment

Employment is likely to increase by slightly less than $1\frac{1}{2}$ percent during 1981 and, with the pickup in economic activity in the following year, to advance by a shade more than 2 percent during 1982.

Growth in the labor force is projected to average about $1\frac{3}{4}$ percent over the next 2 years, advancing at a somewhat slower rate in 1981 and speeding up in 1982. This pace is in line with average annual growth over the last 30 years, although it does represent a distinct slowdown from the $2\frac{1}{2}$ percent annual gain recorded in the 1970s.

These projections for employment and the labor force imply that the unemployment rate at year-end 1981 will be between $7\frac{1}{2}$ and $7\frac{3}{4}$ percent, although it is likely to be above this range in the early part of 1981. During 1982 the unemployment rate is projected to decline steadily, ending the year in the range of $7\frac{1}{4}$ to $7\frac{1}{2}$ percent.

Wage and Price Developments

Wages and prices should decelerate over the next several years. Several factors will be at work. With both fiscal and monetary policy aimed at continued restraint in aggregate demand, the prospects are for modest economic growth through 1982. These developments should limit demand relative to supply in both labor and product markets, gradually reduce inflationary expectations, and ultimately yield a better wage and price performance. At the same time, expanded tax incentives will spur investment and thus improve productivity growth. This too should contribute to moderating wage and price increases.

As discussed in Chapter 1, however, reducing inflation via demand restraint and increased productivity does not yield quick results. Furthermore, a number of factors will serve to keep inflation relatively high in the near future. These will include higher food price inflation, the recent increases in social security taxes and the minimum wage, and the continued rise in energy prices resulting from further oil-price increases and the decontrol of domestic energy prices. These factors suggest that wage and price increases during 1981 may nearly match those recorded in 1980.

Wages and Unit Labor Costs. After showing moderation through most of 1979, wage rates accelerated last year. While the relatively slack labor market will limit further wage acceleration this year, there is unlikely to be any noticeable slowdown. Both oil and food prices will rise sharply in 1981, maintaining the pressure for sizable wage gains. But by 1982, with continued restraint in aggregate demand and lower food- and oil-price rises (decontrol will be completed), the rate of pay increase should diminish, returning to the vicinity of wage gains seen in 1979.

Private wages and fringe benefits are projected to increase 10 to $10\frac{1}{2}$ percent during 1981. In addition, the jump in payroll taxes which occurred on January 1, 1981 added slightly over one-half percent to the level of compensation. As a result, increases in total hourly compensation should average about $10\frac{1}{2}$ to 11 percent over the 4 quarters of 1981, with a large bulge in the first quarter. With only a modest boost in payroll taxes scheduled for 1982, the rate of increase in total hourly payroll costs should slow noticeably.

In the face of sluggish economic activity in the first half of 1981, productivity could well record a slight decline. Thereafter, with the

reemergence of modest but sustained economic growth, productivity is projected to increase slightly faster than its underlying trend rate of 1 to 1½ percent. This productivity performance, in conjunction with the slowdown in the increase in hourly compensation projected for late 1981 and into 1982, should substantially moderate increases in unit labor costs.

Product Prices. The large share of wage and salary payments in total business costs makes the advance of unit labor costs a fundamental determinant of the trend increase in product prices. Thus, the prospects for product prices basically mirror those for unit labor costs, with the overall rate of price inflation as measured by the GNP deflator expected to be noticeably improved by 1982. Over the 4 quarters of 1982 the overall inflation rate is expected to drop to about 8¾ percent. During 1981, however, the rise in the deflator should roughly match the 1980 increase of 10 percent. Adoption of the motor fuels tax could add another one-fourth to one-half percentage point to growth in the deflator. The near-term projection for inflation reflects developments in energy discussed above and agricultural markets, which deserve special attention.

Food Prices. Significantly higher prices for food are anticipated for 1981, with a rise of about 12 percent likely. The production adjustments already underway by meat producers, together with the effects of the summer-long drought, will exert upward pressure on commodity prices. Continued increases in energy costs and labor wage rates imply that food marketing costs will increase at about the rate of general inflation.

Meat price increases will probably be most visible to the average consumer. After 5 years of steady increase, pork production is expected to fall 6 to 8 percent. Beef production is likely to be only slightly higher than its low level in 1980. Live animal prices are forecast to be much higher than in 1980. High prices (and limited supplies) of feedgrains will limit increases in poultry production. Meat supplies will also be tight on a world scale. While the seasonal pattern of the 1981 meat price increase is still in doubt, it appears that retail meat prices will rise most notably from April through August before stabilizing (and perhaps declining) late in the year. Crop conditions in the United States and worldwide will determine this pattern. Generally poor crop conditions early in the year could push grain prices much higher. Under these conditions, retail meat prices would be lower in the first half (as herds are liquidated) but higher in the second half than is now expected.

Agricultural conditions also point to higher prices for most other food items during 1981. Commodity price increases resulting from

the drought in 1980 will be reflected in food prices during most of 1981.

The Consumer Price Index. The CPI merits special attention because of its high visibility and its key role in the indexing of both wage contracts and benefit levels under Federal entitlement programs. The CPI is expected to increase by 12½ percent over the 4 quarters of 1981, with roughly one-half percentage point of this increase accounted for by the proposed increase in the motor fuels tax. This increase, which is roughly the same as was registered during 1980, is about 2 percentage points higher than the increase forecast for the GNP deflator. Among other reasons for this difference, the CPI is more sensitive to increases in oil and food prices. Further, mortgage interest rates have no direct effect on the deflator. Although the increase in the CPI in 1981 is likely to match the 1980 increase, the first quarter of the year is likely to see a surge of inflation in the CPI due to already recorded mortgage interest rate increases. After this effect has passed the outlook is for improvement during the remainder of the year and continuing through 1982. During 1982 CPI inflation is expected to decline to about 9½ percent.

Uncertainties in the Outlook

Among the various uncertainties in the outlook, two deserve particular attention: the possibility of a serious collision between the demand for funds and the monetary targets of the Federal Reserve, and the possibility of sharply higher oil prices should the continued loss of Iraqi and Iranian oil, or some other shock, tighten oil markets.

Interest rates now appear to have peaked in mid-December of last year. Most short-term rates have already fallen sharply, some by as much as 3½ percentage points. While long-term interest rates have fallen by much smaller amounts, the peaks in these rates also seem to have passed. But additional dramatic declines—like those of last spring—are not likely this year. There remains considerable uncertainty as to what the Federal Reserve's operating targets imply for the path of interest rates between now and the end of 1982. Furthermore, interest rates are still unusually high for the early stages of a recovery. Should rates surge upward again, it is likely that housing and other interest-sensitive sectors would suffer serious setbacks. In this event, weakness in economic activity could continue past mid-year, and the rise in the unemployment rate might continue throughout the year.

A second risk is the possibility of a major hike in oil prices. Such a shock would contribute significantly to inflationary pressures at the same time that it would depress real economic activity and drive up the unemployment rate. The precise quantitative effects of such a

hike would depend on many factors, including the response of the Federal Reserve. Under plausible assumptions, if in early 1981 the world market price of oil were to rise \$10 per barrel above that already assumed, then by year-end this would add about 2 percentage points to the inflation rate and reduce the growth of real GNP from what it otherwise would have been by 2 percentage points. Some further effects would be felt in 1982, and by year-end the unemployment rate would be about 1 percentage point higher than it would have been without this increase in oil prices.

While the two major uncertainties in the outlook raise the possibility that the recovery will be weaker than forecast, a stronger recovery is entirely possible. Any improvement in the outlook must have at its core a reduction in the rate of inflation. A better inflation performance could result from several causes, the chief among them being improved productivity, more moderate wage gains, or favorable crop developments. If, for example, that part of the slowdown in productivity which had remained a bit of mystery were to reverse itself, the outlook for business costs and prices could be greatly improved. Reductions in inflationary expectations would follow, reinforcing the direct effects of the productivity improvement. Presuming the Federal Reserve maintained its monetary targets, the improved inflation outlook would tend to reduce interest rates and generally ease conditions in financial markets. As a consequence, real economic activity could advance more rapidly than forecast.

THE GOALS OF ECONOMIC POLICY

The Humphrey-Hawkins Full Employment and Balanced Growth Act sets forth both general and highly specific objectives for two of the most important indicators of the country's economic health, the unemployment rate and inflation, and establishes the target of reducing Federal outlays to 20 percent of GNP. The act establishes specific milestones for the achievement of these objectives. An interim goal of Federal outlays equal to 21 percent of GNP is set for 1981; interim goals of 4 percent for the overall unemployment rate (3 percent for adults) and 3 percent inflation are both set for 1983.

According to the act, beginning with the 1980 *Economic Report* the President may, if he deems it necessary, modify the timetable for achievement of the interim and final goals for unemployment, inflation, and Federal outlays as a share of GNP. Last year's *Economic Report* discussed in some detail the degree of progress toward these goals and the reasons why their achievement by 1983 was not possible. The chief reason was the 1979 rise in oil prices. Federal policies

in 1979 and 1980 were of necessity aimed at limiting the negative impact of these oil-price increases.

Economic policy now faces a stiff challenge: to reduce a stubborn inflation, improve the growth of productivity, and expand output and employment. The policies required to meet this challenge are discussed in Chapters 1 and 2 of this *Report*, and they will lead to substantial progress toward the goals of reduced inflation and lower unemployment over the next 5 years. Longer-term projections are shown in Table 26. But even with this progress, it will not be simultaneously possible to achieve 4 percent unemployment and 3 percent inflation in the time envisioned in the Humphrey-Hawkins Act or in last year's *Report*. Attempts to reach either goal on the act's timetable would frustrate progress toward the other goal and could substantially impair the prospects for improved economic performance. In the long run such attempts would prove self-defeating and result in very harmful economic and social consequences. The more gradual path shown in the table will allow us to make progress toward our goals and to maintain them once achieved. Over the years ahead Federal spending as a share of GNP will decline, but the level of spending required to meet national needs and priorities, especially in the defense area, will not permit a reduction to the numerical target set forth in the act.

TABLE 26.—*Economic projections, 1981–86*

Item	1981	1982	1983	1984	1985	1986
Unemployment rate (percent), fourth quarter ¹	7.7	7.4	7.0	6.6	6.2	5.9
	Percent change, fourth quarter to fourth quarter					
Consumer price index.....	12.6	9.6	8.2	7.5	6.7	6.0
Real GNP.....	1.7	3.5	3.7	3.7	3.7	3.7

¹ Seasonally adjusted.

Source: Council of Economic Advisers.

SUPPLEMENT

National Income and Product Account Revisions

The national income and product accounts (NIPA), which provide data on aggregate output and income, were substantially revised in 1980 by the Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce. The revisions included a refining of accounting concepts and estimation procedures, and introduced new and more recent sources of data. The last

major revision of the NIPA occurred 5 years ago and was reported in the January 1976 *Survey of Current Business* published by the Commerce Department. The current revision will be described in an article in the December 1980 *Survey*. All of the NIPA data discussed in this *Report* are the revised data, except as noted.

The major features of the revision are these:

- The data from three major new sources are now incorporated in the NIPA. These are BEA's 1972 input-output tables, the 1977 censuses, and the 1973 and 1976 Compliance Measurement Program of the Internal Revenue Service (IRS).
- Normal data sources which would have been used in the postponed July 1980 annual revisions of the NIPA (e.g., IRS tax return information, annual surveys of manufacturers, housing, and retail trade) were also utilized in these revisions.
- The major conceptual change in the NIPA involves the treatment of certain international transactions. The *reinvested* earnings of incorporated foreign affiliates of U.S. companies are now included in exports of services. The *repatriated* earnings of these affiliates were previously included in exports of services. The reinvested earnings of incorporated foreign-owned affiliates in the United States receive similar treatment thus adding to imports of services. Because the U.S. earnings abroad are larger than the foreign earnings here, the net result is higher net exports and gross national product especially since the late 1960s. Gross domestic product is, of course, unaffected by the change. This change makes the handling of foreign earnings in the NIPA consistent with that used in the balance of payments accounts since 1978.
- The treatment of international transactions has also been changed by using a new procedure for estimating the prices of service exports and imports.
- More detailed analysis of Federal purchases has allowed separate constant dollar estimates for both nondefense and defense purchases beginning in 1972.
- The level of detail at which output is deflated has been increased.
- Estimating procedures now allow a more complete differentiation between dividend and interest income than was previously reported.

The revisions have raised estimates of real GNP by about 3½ percent for 1979, by about 2½ percent for 1974, and by lesser amounts for earlier years. About one-third of the upward revision for the years 1977-79 was due to the conceptual change in the handling of foreign earnings. In addition, the revision in the deflators has, on balance, reduced estimates of prices, thus raising real output. Finally, estimates of real nonresidential fixed investment have been substantially increased, especially since 1973. The ratio of real

nonresidential fixed investment to real GNP, which had previously averaged 9.9 percent between 1974 and 1979, now averages 10.4 percent.

Past business cycle patterns have been little changed by the revisions. The GNP-measured turning points are all as previously reported. However, the peak-to-trough declines have been reduced by one-half percent and 1 percent for the 1970 and 1974-75 contractions, respectively. The NIPA now show the 1974-75 contraction being interrupted by 1 quarter of slight expansion in the second quarter of 1974, immediately following the period of the Arab oil embargo.

Total compensation remained roughly the same as before revision, but its composition changed. Wages and salaries in the most recent years are now higher and supplements lower than had been previously reported. Business net interest was revised upward by significant amounts especially in recent years. These revisions rise to \$13.7 billion for 1979. Corporate profits were raised significantly, but chiefly because of the conceptual change in reinvested foreign earnings. Lowered estimates of corporate taxes contributed to higher corporate retained earnings and saving estimates for the most recent years. Personal saving estimates were also raised. This is because estimates of personal consumption were barely changed, while personal income was revised upward considerably. The personal saving rate in the 1970s was revised upward from an average 6.4 percent under the old estimates to 7.1 percent under the new estimates.

Potential GNP

Until a formal reappraisal of the historical growth in real potential output can be completed in the light of the 1980 benchmark revisions to the NIPA, a provisional procedure has been used to estimate real potential GNP. The provisional procedure includes two major changes. First, revised data on business output indicate a somewhat more rapid gain in worker productivity since 1973. As a result, the trend rate of growth in potential GNP has been increased by one-fourth of a percentage point from 1973 on. Thus the one-half percentage point deceleration in the old potential series that occurred in 1973, principally due to reduced productivity growth, has been changed to a one-fourth point deceleration. The further one-half point deceleration in potential that had been assumed starting in the first quarter of 1979 is still maintained. The second major change in the series was to add directly to potential the dollar estimate of the conceptual change to rest of world output that occurred from the revisions in the handling of reinvested foreign earnings. In this manner, the gap between actual and potential GNP is unaffected by conceptual changes to the NIPA. The dollar amount of these conceptual revisions has been growing very rapidly recently. As a result, these changes actually increase the estimated growth of potential in recent years by nearly 0.2 percentage point. The newly-constructed series grows somewhat less than 3 percent since the first quarter of 1979. This growth rate is expected to continue through 1981. Thereafter the series is projected to grow at 3 percent

per year. This modest acceleration is due to the combined effect of a small assumed increase in the growth rate of worker productivity offset by an expected decline in the contribution to growth of the conceptual changes to the NIPA. On balance, these changes to actual and potential GNP result in smaller output gaps over the recent past (Table 27).

TABLE 27.—*Revised potential GNP, 1973–80*

Year	Potential GNP. (billions of 1972 dollars)	GNP gap (percent) ¹	
		Revised	Pre-revision
1973.....	1,234.9	—1.6	—0.7
1974.....	1,277.5	2.3	3.7
1975.....	1,320.6	6.6	7.7
1976.....	1,365.1	4.7	5.1
1977.....	1,411.4	2.8	3.0
1978.....	1,459.3	1.5	1.7
1979.....	1,504.6	1.4	2.0
1980 ²	1,548.5	4.4	(³)

¹ Potential minus actual as a percent of potential.

² Preliminary.

³ Not available.

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

CHAPTER 4

The World Economy: Coping with Transition

The economic challenges facing the United States which have been discussed in previous chapters of this *Report* are not unique to this country. The problem of continuing high inflation is broadly shared by many of the industrial (and developing) countries. The enormous increase in the price of energy has created difficult problems of adjustment everywhere. Productivity growth has slowed not only in the United States but also in other countries. At the same time that all countries individually take actions to deal with these problems, cooperation among countries is required to manage the ever increasing interdependence of the world's economies.

Over the next several years four major challenges will have to be surmounted to bring about the transition to a world economy with less inflation and higher growth.

First, a combination of demand restraint and vigorous efforts to improve supply must be employed to bring down inflation and raise productivity.

Second, the constraints placed on world economic expansion by limited supplies of energy must be loosened by policies to increase energy availability and reduce energy demand.

Third, continued close attention is needed to assure that the international financial system effectively handles the much enlarged flow of financial resources among countries.

Finally, the open trading system that contributed so importantly to rising prosperity in past decades must be strengthened in the face of increasing pressures to adopt protective measures and the temptation to indulge in "beggar-thy-neighbor" policies.

The energy challenge is well understood and its international aspects were discussed extensively in last year's *Report*. It will therefore be dealt with only briefly in this chapter. Following an initial discussion of recent and prospective economic performance in the major industrial countries, the chapter examines each of the remaining three challenges—the challenge to the conduct of macroeconomic and structural policies, the challenge to the financial system, and the challenge to trade relations.

THE INDUSTRIAL ECONOMIES: TRENDS AND PROSPECTS

In 1974-75, following the tripling of oil prices by the Organization of Petroleum Exporting Countries (OPEC), the industrial world experienced its largest recession since the second World War. In 1980, following a second major rise in oil prices, economic expansion again came to a halt. It is abundantly clear that price shocks of the size experienced in recent years cannot be absorbed without serious strains and disruptive side effects: real incomes are squeezed, inflationary forces are intensified, and output and employment are reduced. Fiscal and monetary policies cannot substantially offset or counteract all of these effects. Expansionary fiscal and monetary policies could moderate the decline in output, but at the cost of building yet higher inflation into the economy. Restrictive policies, on the other hand, could limit the rise in inflation, but they would also tend to accentuate the decline in output and employment. Following the second oil-price shock, most countries have opted for policies of moderate restraint. This choice reflects the judgment that such policies would stand the best chance of reducing secondary distortions in the structure of costs and prices and in the distribution of income among sectors, and thus would help speed the process of adjustment to the higher oil prices. That judgment appears to have been correct.

ECONOMIC ACTIVITY

Although all the evidence is not yet in, it appears that the second oil-price shock is being absorbed more smoothly than the first one was. Recent indicators and current projections show a smaller swing in output and a lesser surge in inflation for most countries. Table 28 shows recent growth rates and Organization for Economic Cooperation and Development (OECD) projections for the major countries. Except for the United Kingdom, the general pattern is one of relatively mild and brief recession concentrated in the second half of 1980, followed by a very modest but strengthening recovery in 1981.

TABLE 28.—*Real GNP growth in major industrial countries, 1976-82*

(Percent change from previous period; seasonally adjusted annual rates)

Country	1976 to 1979 annual average	1980		1981		1982 first half ²
		Year ¹	Second half ¹	First half ²	Second half ²	
United States	3.9	-%	-1%	1	2½	3½
Japan	5.9	5	2%	4	4¼	4¼
Germany	3.8	1%	-3	½	1½	2
France ³	3.3	1%	½	1	2	2¼
United Kingdom ³	1.5	-2¼	-5%	½	-2½	0
Italy ³	3.2	3%	-3½	-1¼	2¼	2½
Canada	2.9	-½	-½	1¼	2	3¼
Total of above countries	3.9	1	-1¼	1¼	2¼	3

¹ OECD estimate.

² OECD projection.

³ Gross domestic product.

Source: Organization for Economic Cooperation and Development (OECD).

There are several reasons why the recession appears to have been milder, and the rise in inflation less, after the second oil-price shock than after the first. In the first place, inventory movements are substantially smaller in the current cycle than they were in 1974-75. The massive inventory liquidation that marked the earlier recession is not being repeated. As a result, the decline in output has been smaller and the projected pace of recovery is initially slower.

Consumer spending also has been better maintained in relation to income. Saving rates rose sharply in all countries following the first oil-price shock, but they have not done so recently, except in the United Kingdom. Slowing consumer demand is fully accounted for in most countries by weakening household incomes, rather than by marked changes in saving behavior.

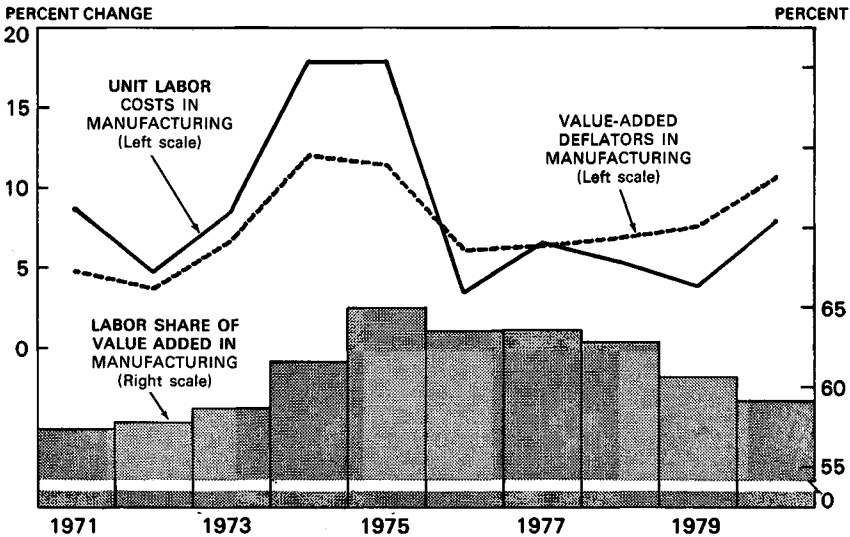
Finally, real wages in most countries have adjusted downward more rapidly in the wake of the recent oil-price rise than they did after the first one, and they have done so with a smaller acceleration of nominal wages. Both the different response of real wages and that of nominal wages have important consequences.

When the world price of oil rises, countries that import oil lose real income. This loss can be absorbed in several ways. If nominal wages rise in line with traditional productivity increments and also to match all increases in consumer prices that result when higher energy costs are passed through, then real wage incomes are protected. Corporate profits, however, are squeezed. In this case household consumption opportunities are preserved, but investment demand is likely to be curtailed as firms grapple with reduced cash flow and lower returns on new investment. Alternatively, if nominal wages rise by a lesser amount in relation to prices, then real wage incomes are squeezed, but the associated decline in real labor costs provides firms with a margin that offsets, in whole or in part, the increase in their energy costs. In this case, consumption may be curtailed, but investment incentives are better maintained.

Chart 10 shows the difference in how the real income loss was absorbed abroad following the two oil-price shocks. In 1974-75 unit labor costs rose much more than value-added deflators for manufacturing. This implied a sharp rise in the labor share of total value added, and a corresponding fall in the profit share, which was only gradually restored in subsequent years. The squeeze on profits was a major cause of low rates of investment in most foreign countries during the following years. And lagging investment largely explains the "hesitant recovery" abroad that was described in the 1978 *Report*. In contrast to the experience abroad, real wages fell in the United States in 1974-75, and investment demand grew apace during the subsequent recovery.

Chart 10

Labor Costs, Value-Added Deflators, and Labor Share in Six Major Foreign Countries



NOTE.—INCLUDES JAPAN, GERMANY, FRANCE, UNITED KINGDOM, ITALY, AND CANADA.

SOURCE: ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT.

In 1979–80, the increase in unit labor costs in major foreign countries remained less than the rise in value-added deflators, thus giving manufacturers some room to absorb increased energy costs without a major squeeze on profit margins. Largely for this reason, but also because the needs to modernize production and improve energy efficiency are substantial, business investment abroad may not weaken unduly in the current recession and may begin to rise again at an early stage of the projected recovery.

The necessary reduction in real incomes, whether it is initially absorbed by wage earners or by their employers, can be associated with a larger or smaller acceleration in inflation. If nominal wages rise sharply, and firms resist the erosion of profit margins by further raising prices, then the adjustment will take place in an environment of rising inflation. By contrast, if nominal wages do not accelerate, then real wages will initially fall as higher oil prices are passed through, but the underlying rate of inflation will not accelerate. And once the pass-through of higher oil costs is completed, actual price rises will

begin to moderate. The second pattern is preferable, not only because it is more likely to sustain investment but also because it generates less inflation. The relative moderation of nominal wage increases in most countries recently, in sharp contrast to the nominal wage explosions that occurred in 1974, is therefore encouraging.

Despite these generally favorable developments, only sluggish growth is now projected for most countries during 1981. Two major factors account for this. First, as already noted, inventory building will not provide added strength. Second, fiscal and monetary policies will remain restrictive. Fiscal deficits in 1980 were little changed from those of 1979 in the major foreign countries, despite the slowing revenue growth and expenditure increases associated with weakening economic activity. Discretionary fiscal policy actions tended to work toward restraint. Announced policy intentions in most countries suggest a further shift toward restraint in 1981. Growth in government expenditures, in particular, is planned to stay below anticipated growth in gross national product (GNP) in most countries, thus reducing the share of government and limiting the rise in budget deficits.

EXTERNAL POSITIONS

For the OECD countries as a group, the two oil-price shocks have had similar effects on trade and current-account positions. In nominal terms, the current account of the OECD as a whole shifted from surplus to deficit by about 1 percent of GNP in 1974 and by about 1½ percent of GNP in 1979–80. In both periods, however, the volume of real imports fell relative to exports; real trade balances therefore rose, moderating the decline in GNP relative to domestic demand.

But in one important respect the 1974–75 and 1979–80 periods have been very different. Both the volume of imports and of exports declined precipitously after 1974, even in relation to the large fall in GNP. The current decline in trade volumes has been much more moderate, and more nearly in line with the path of GNP. A renewed expansion of world trade, albeit at moderate rates, is anticipated as recovery proceeds.

Although the aggregate shift in current-account positions was broadly similar after the two oil-price shocks, there are some important differences in the way this shift was distributed among the major OECD countries (Table 29). In general, a larger share of the total shift has been absorbed by those countries whose relatively good inflation performance and previously strong external positions made them better able to finance these deficits. Most notably, the remarkable performance of Germany in 1974, when its surplus increased by \$5.7 billion despite the rise in its oil bill, has not been repeated.

Rather, the German current account shifted from a surplus of about \$9 billion in 1978 to an estimated deficit of \$17 billion in 1980. The Japanese current account also moved sharply, from a \$17-billion surplus in 1978 to an estimated \$13-billion deficit in 1980. This shift reflected not only higher oil payments but also the adverse short-term effect of yen depreciation during 1979 and the first quarter of 1980 on the nominal trade balance. These two effects more than offset the strong Japanese trade performance, in volume terms, during the past year.

TABLE 29.—*Current-account balances in major industrial countries, 1978–81*

[Billions of U.S. dollars ¹]

Country	1978	1979	1980 ²	1981 ³
United States.....	-14.3	-0.8	5½	19%
Japan.....	16.5	-8.8	-13¼	-6%
Germany.....	8.7	-5.5	-17¼	-10½
France.....	3.7	1.2	-7%	-6¼
United Kingdom.....	1.2	-3.9	4½	4¼
Italy.....	6.2	5.1	-5¼	-2¼
Canada.....	-4.4	-4.4	-3½	-3
Other OECD.....	-8.7	-18.4	-37	-35¼
Total OECD.....	9.0	-35.5	-73½	-40

¹ Current account balances inclusive of official transfers.

² Preliminary OECD estimates.

³ OECD projection.

Source: Organization for Economic Cooperation and Development (OECD).

By contrast, the current account of the United States improved by an estimated \$20 billion over this same period, as discussed more fully in Chapter 3. Similarly, the United Kingdom moved into substantial surplus during 1980, both because that country has become largely self-sufficient in oil—so that its trade account was not strongly affected by the rise in oil prices—and because the recession has been relatively more severe in the United Kingdom than elsewhere, thus limiting imports.

INFLATION

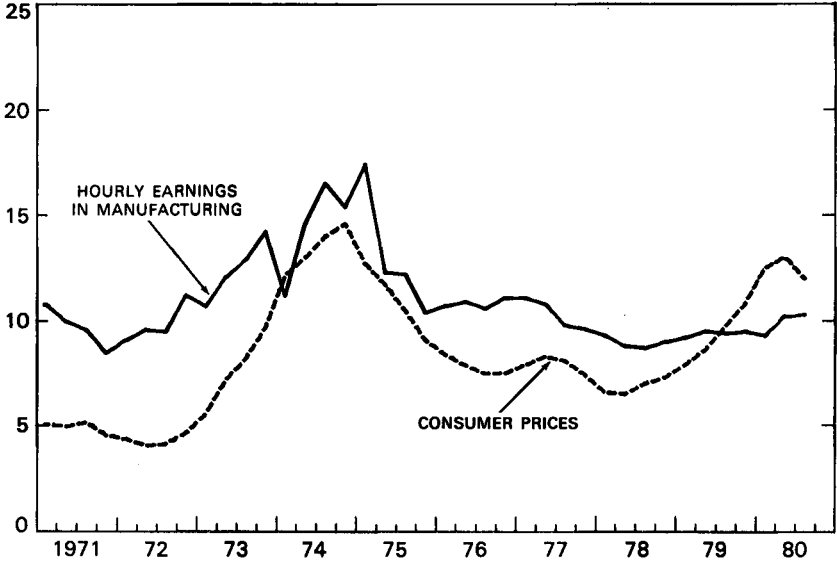
The different pattern of absorption of the recent oil-price shock compared to the earlier one shows up clearly in the movements of wages and prices. Chart 11 traces the movements of consumer prices and hourly earnings in manufacturing over the past decade for the major industrial countries. As measured by consumer prices, rates of inflation outside the United States tended to decline during 1978 to levels comparable to those prevailing in the early 1970s—though with substantial dispersion among countries. But consumer price inflation accelerated everywhere during 1979 and into 1980 under the impact of higher energy prices. In sharp contrast to the earlier period, however, hourly earnings accelerated only moderately, and lagged behind consumer prices in almost all countries. As oil prices

stabilized in mid-1980, inflation rates peaked and then began to recede in the second half of the year. On current projections, and assuming that oil prices do not again rise sharply, a continued reduction in inflation rates is in prospect for most countries during 1981—indeed, a somewhat more rapid reduction abroad than in the United States (Table 30).

Chart 11

Wage and Price Changes in Seven Major Countries

PERCENT CHANGE FROM 4 QUARTERS EARLIER



NOTE.—INCLUDES UNITED STATES, JAPAN, GERMANY, FRANCE, UNITED KINGDOM, ITALY, AND CANADA.

SOURCE: ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT.

Substantial differences among the major countries will persist, however. At one extreme, inflation rates in Germany and Japan during 1981 are likely to return to the moderate levels that were achieved in 1977–78. On the other hand, relatively high inflation is likely to persist in a number of other countries—especially Italy, but also the United States, France, and Canada—where wage rigidities appear to be more significant. In the United Kingdom, the continued adherence to restrictive fiscal and monetary policies, the strength of the pound, and substantial slack in labor and product markets appear to be causing a rapid decline in inflation from the high levels reached in 1979 and early 1980. But even so, inflation in the United Kingdom will remain relatively high.

TABLE 30.—*Inflation in major industrial countries, 1976–82*[Percent change in prices ¹]

Country	1976 to 1978 annual aver- age	1979	1980 ²	1981 ³	1982 first half ³
United States	6.2	8.9	10½	10	9½
Japan	5.5	3.1	6¼	5¼	5
Germany	3.2	3.9	5¼	4	3
France	9.4	10.9	13¾	11¾	9½
United Kingdom	11.7	12.2	15½	12	9
Italy	12.0	14.8	20¾	15¾	13½
Canada	9.8	9.1	9¾	10	9¾
Total of above countries	6.8	8.1	10½	9¼	8¼

¹ Change in implicit price deflator for private consumption expenditures for United States, Japan, Germany, United Kingdom, and Canada. Change in consumer prices for France and Italy. Percent changes for first half 1982 are from previous half year at seasonally adjusted annual rates, except France and Italy, not seasonally adjusted annual rates.

² Preliminary.

³ OECD forecast.

⁴ Based on 1979 GNP/GDP weights and exchange rates.

Source: Organization for Economic Cooperation and Development (OECD).

SUMMARY ASSESSMENT

It is not possible to provide a definitive explanation of why the oil-price rise was absorbed more easily during the current cycle than it was in 1974–75. Timing is certainly one important consideration. The most recent runup in oil prices came at a time when most countries were still on an upswing from the previous recession, rather than at a peak. Hence, cyclical factors tended to offset, rather than accentuate, the 1979 price shock. In addition, the 1974 shock followed hard upon a major surge in industrial and agricultural commodity prices, which generated strong speculative pressures and excessive inventory accumulation. Commodity prices—except for the explosion in prices of precious metals in 1979 and early 1980—have shown a less marked upward trend in the recent period.

The key element promoting smoother adjustment, however, has been the restrained response of nominal wages to rising prices in most countries. This restraint has served a double function. It has helped to preserve a relationship between costs and prices that will encourage a more rapid resumption of growth by maintaining profitability and thus investment. It has also limited the rise in underlying inflation rates and thus reduced the probable duration and severity of the fiscal and monetary policy restraint that is required.

A number of factors may explain the moderate behavior of wages, and different factors may be more important in some countries than in others. The unambiguous adoption, in almost all countries, of monetary policies that did not seek to finance the rise in oil prices with faster rates of monetary expansion has certainly been an important factor, as has the pursuit of moderately restrictive fiscal policies. “Jawboning” by government officials may also have had an effect in

some countries, and in the United States a more formal incomes policy has played a role. Wage moderation may also have reflected the higher average levels of unemployment and associated labor market slack that prevailed in 1979. In some countries—especially those where the oil-price shock has been absorbed most rapidly such as Germany and Japan—wage moderation may reflect an implicit social consensus under which unavoidable reductions in real incomes are accepted by wage earners in the understanding that the distribution of income will not thereby be shifted to their disadvantage.

Although the adjustment to the recent runup in oil prices has proceeded relatively smoothly in most countries, it cannot be denied that the process is very costly. While the increased oil bill due to the price rises of 1979–80 amounts to about 2½ percent of the combined GNP of the OECD member countries, the cost in lost output is much larger. Taking into account the effects of both the oil-price rise itself and the restrictive monetary and fiscal policies it called forth, the OECD estimates that the level of GNP in the OECD member countries may be some 6 percent, or about \$500 billion, lower by the beginning of 1982 than it would have been in the absence of the oil-price rise. While this estimate might be somewhat on the high side, it is nevertheless clear that even smooth adjustment cannot prevent major secondary repercussions.

RISKS IN THE OUTLOOK

Excluding the United States, real GNP in the major industrial countries is projected to rise at about a 2 percent annual rate from the second half of 1980 to the first half of 1982—a pace unlikely to be rapid enough to prevent some further increases in unemployment. Inflation rates in the industrial countries outside the United States are projected to slow—averaging about 8.5 percent by the first half of 1982, as compared to 11 percent in the second half of 1980.

The possibility of worse outcomes cannot be dismissed, however. In particular, one cannot be entirely confident that the pattern of wage moderation will continue, inasmuch as the reasons for it are not fully understood. A continuation of relatively restrictive monetary and fiscal policies in most countries is widely viewed as necessary to contain this risk, but these policies may also slow recovery by more than is now projected. More critically, the situation in the oil market is once again precarious following the interruption of supplies from Iran and Iraq. A further large increase in oil prices in 1981 could undermine the still fragile process of consolidation and recovery. The following section addresses this issue in more detail.

THE GLOBAL OIL MARKET

Table 31 summarizes world petroleum production and use patterns over the past 8 years. The most striking aspect of the table is how small the year-to-year fluctuations in production have been. The major disruptions of 1974 and 1979 were associated with very modest shifts in the balance between consumption and production. It is the low price elasticities of supply and demand in the short run, rather than wide fluctuations in the quantities supplied or demanded, that make disruptive price movements possible.

TABLE 31.—*Global oil balances, 1973-80*

[Millions of barrels per day, except as noted]

Item	1973	1974	1975	1976	1977	1978	1979 ¹	1980 ²
OECD consumption.....	39.3	37.6	36.3	38.5	39.4	40.3	40.4	38.0
Less: OECD production.....	13.9	13.4	12.8	12.7	13.3	14.2	14.8	15.0
Equals: Required OECD imports for consumption (A).....	25.4	24.2	23.5	25.8	26.1	26.1	25.6	23.0
OPEC production.....	31.3	31.1	27.6	31.2	31.8	30.5	31.5	27.8
Less: Non-OECD consumption minus non-OPEC, non-OECD production.....	5.4	5.2	4.3	4.8	4.9	4.9	5.0	4.8
Equals: Available to OECD from rest of world (B).....	25.9	25.9	23.3	26.4	26.9	25.6	26.5	23.0
Balancing item (B minus A) ³.....	.5	1.7	-2	.6	.8	-.5	.9	.0
Estimated stock levels, end of year (billions of barrels).....	(*)	(*)	(*)	3.6	4.0	3.9	4.2	4.2

¹ Preliminary.

² Forecast.

³ Stock-building and/or statistical errors.

⁴ Not available.

Source: Council of Economic Advisers.

The 1979 rise in oil prices occurred despite increased oil production. The curtailment of Iranian supplies in late 1978 was more than made up in 1979 by production increases elsewhere. Nevertheless, a number of prior developments had created conditions favorable to price increases. First of all, world consumption of petroleum, though rising more slowly after 1975 than in the previous decade, nonetheless increased steadily from 1975 to 1978, reducing the excess production capacity that had emerged after the first oil-price shock. Second, the real price of oil fell during this period, thus encouraging consumption and also reducing the real value of OPEC revenues. Finally, stocks were drawn down during the course of 1978—perhaps because falling real oil prices had made stock building appear unprofitable. As a result, the margin of flexibility available to accommodate the curtailment of Iranian supplies was small, and the incentives for OPEC countries to raise prices were strong.

It is clear that smaller price increases than actually occurred would have been sufficient to balance consumption and production. Rising demand for stocks, however, kept pushing prices higher well into

1980. After midyear, when consumption had fallen sufficiently to accommodate and moderate the stock buildup, price pressures began to ease. In fact, excess supply conditions were avoided only because a number of OPEC countries cut back their production.

Hindsight also shows that a less ambitious restocking pattern during 1979 and up to mid-1980 would have made a smoother adjustment possible. One cannot be certain of all the reasons why this restocking occurred, but several factors may have been important. First, additional stocks may have been needed to keep the distribution system operating smoothly, given the growing fragmentation of the world oil market and the resulting decreased ability of the major oil companies to shift supplies around to accommodate shifting needs. In addition, the disruption in late 1978 and early 1979 greatly increased feelings of uncertainty about future supplies and thus raised the precautionary demand for stocks. Finally, the rise in prices itself tended to increase the incentives for stock accumulation in anticipation of capital gains—at least until prices had risen sufficiently to make further price rises appear less probable. This speculative motive may have been strengthened by the belief that OPEC countries respond asymmetrically to market conditions. If OPEC producers respond to tight market conditions by raising prices but cut back on production when markets weaken rather than allowing prices to fall, they in effect build a ratchet under existing prices. Stock building then becomes a particularly attractive form of speculation when prices begin to rise, since the risk of major financial loss from a subsequent fall in prices is much reduced.

Although the massive buildup of stocks during 1979 and 1980 was very costly because of the added pressure it placed on oil prices, these stocks have subsequently proved valuable because they have provided a cushion in the face of the Iran-Iraq war. The oil market would in all probability have been slack in 1981, with little pressure on oil prices, if the Iran-Iraq war had not occurred. Prior to the onset of hostilities, consumption per day was several million barrels below world capacity, and stocks were at very high levels. Now, however, the situation is more difficult to assess. The war has removed nearly 4 million barrels a day from world oil supplies for an undetermined length of time, but some of this loss is being offset by increased production elsewhere. At the moment, stocks are still above their normal historical levels, and severe market pressures have not emerged.

The margin, however, is a narrow one. If oil consumption continues to decline as further adaptation to higher prices outweighs the effects of resumed economic growth, if the war does not widen, and if stock drawdowns are permitted to occur as needed, then a balance

may be preserved. Stocks are in fact being drawn down, consistent with the objectives set for the major oil-consuming countries at the meeting of the International Energy Agency late last year. But if the disruption is more severe, or mismatches on a country-by-country basis between demands and stocks induce a scramble for extra supplies and a bidding up of prices in spot markets, or if expectations of price rises—warranted or not—induce speculative withholding of stocks in anticipation of capital gains, then acute market pressures could once again develop.

DIRECTIONS FOR ECONOMIC POLICY: NEEDS AND CHALLENGES

Despite the progressive absorption of the 1979 oil shock and the projected beginning of moderate recovery this year, the world economy will be grappling with several difficult problems in the years immediately ahead.

First, policies of demand restraint are needed in all countries to fight inflation. This need is felt not only in those countries where inflation rates are highest, but also in those where considerable progress has already been made in bringing inflation down. For these latter countries, the concern is that an early relaxation of restrictive policies before inflationary expectations have been firmly laid to rest would allow inflation to reaccelerate. This would not only undo the progress achieved but would also undermine the credibility—and hence the effectiveness—of subsequent anti-inflation policies. The degree and duration of needed restraint, of course, varies among countries. Where inflation rates have been persistently high, continued restraint for a number of years may be necessary to bring inflation down and to convince people that it will stay down. Where inflationary expectations are less deeply entrenched and where inflation is lower, a shift to less restrictive policies may be possible sooner.

Because of the momentum of inherited inflation and rigidities in the setting of wages and prices, restrictive demand policies that aim to reduce inflation will also slow the growth of production and keep unemployment relatively high for some time. In this way, the inflation problem gives rise to an unemployment problem. Unemployment rates have risen in most countries during the 1970s, and no early reversal of this trend is in sight. High unemployment is costly not only because it imposes hardships on those who do not have jobs, but also because it fosters “preservationist” attitudes among society generally. Economic restructuring becomes more difficult when workers in declining firms or industries fear they will be unable to find other work, when pressure on governments to subsidize unprof-

itable activities intensifies, and when trade protection becomes more attractive.

The second fundamental problem is that in most industrial countries the growth of potential output has fallen because of lower productivity gains. The decline in productivity growth has generally been less marked abroad than in the United States, but it has occurred to some extent in all countries. Although all the reasons for this decline are not known, several common factors can be identified. Higher energy prices lead to the substitution of labor for energy, and thereby induce a slowing in productivity. Productivity growth has been slowed also by lower rates of investment in many countries, leading to a smaller rise in capital per worker and a slower pace of adoption of the technological innovations embodied in new capital goods. Finally, productivity growth outside the United States has been reduced because opportunities for technological borrowing have diminished as the "technology gap" between the United States and other industrial countries has diminished or, in many sectors, disappeared.

The decline in productivity growth directly reduces the scope for increases in real incomes and standards of living. Nevertheless, some have argued that as long as the growth of production is also limited by restrictive demand policies the decline in productivity is not all bad because it leads to more employment, and hence less of an unemployment problem, than would be the case if productivity growth remained higher. This argument, however, ignores the fact that lower productivity growth increases cost-push inflation. Since wage demands do not adjust downward when productivity growth slows, unit labor costs rise faster, putting increased upward pressure on prices. If nominal wage demands then accelerate in an attempt to achieve the real income gains obtained in the past when productivity growth was higher, the underlying inflation rate is increased still further. As a result, demand policies have to be more restrictive than otherwise to achieve a deceleration of inflation. In this way a slowing of productivity imposes a double burden. It reduces the growth of potential output, and at the same time it increases the degree of economic slack that is needed to achieve a given deceleration of inflation.

THE SEARCH FOR SOLUTIONS

While restrictive demand policies are needed to fight inflation, other policies must be put in place to reduce the costs that restrictive demand policies inevitably impose on the economy and to restore over time a more normal growth in productivity and living standards. Three broad approaches need to be pursued. First, supply-oriented policies that raise productivity and increase economic flexibility need to be put in place. Second, policies to increase energy supply and to reduce the demand for energy are needed to weaken the energy con-

straint on growth. Finally, policies that directly influence wage and price setting can play a role in some nations in lowering actual and expected inflation.

Supply-Oriented Policies

As discussed in Chapters 1 and 2 with respect to the U.S. economy, supply-side measures can make a significant contribution to improved economic performance. Beyond the direct benefits that such measures can provide by increasing the efficiency with which resources are allocated, they can also serve to reduce the costs of restrictive demand policies. If flexibility in labor or product markets is increased, the effectiveness of demand restraint in slowing inflation also improves. If productivity growth is enhanced, not only does potential output rise but higher levels of capacity utilization can also be achieved, since cost-push inflation is reduced.

There is no master plan of supply-side policies that will be equally useful to all countries, given their different institutional arrangements and structural relationships. Earlier chapters of this *Report* discuss a number of policy approaches appropriate to the United States, and many of these may also be useful in other countries. Two approaches, in particular, stand out as important in most countries.

First, policies are needed to raise the share of GNP that is invested in new plant and equipment. Higher investment is necessary to raise productivity growth, to increase domestic energy production, and to accelerate the economic restructuring that higher oil prices and global shifts in patterns of comparative advantage have made necessary.

A potential problem exists with respect to greater investment, a problem which some have called the "low-growth trap." The argument is that if restrictive demand policies are used to fight inflation, investment will also be reduced because the existence of unutilized capacity will make companies unwilling to undertake investments that may not be needed until the more distant future. Lower investment, in turn, would reduce productivity growth and potential output, and hence reinforce the need for demand restraint. Thus, the final outcome might be a prolonged period of stagflation.

While there are indeed difficulties in trying to increase investment during a period of demand restraint, one need not accept the "low-growth trap" argument. Low rates of capacity utilization do, by themselves, have a negative effect on investment. Other factors, however, are also important and can offset this effect. As was emphasized earlier in this chapter, the recent oil shock has been absorbed in a way that has limited the erosion of profitability and cash flow to enterprises, and thus has supported investment. Moreover, the need for restructuring may require substantial investment even in sectors where

capacity utilization is low. The U.S. automobile sector is a clear example, and similar requirements exist in most countries. Finally, as discussed in Chapter 1 with reference to the United States, there is a good deal of evidence that policies to raise the return on capital investment or to lower the cost of capital can have substantial impacts on investment demand even when significant excess capacity exists. For all of these reasons it seems probable that countries can avoid a low-growth trap and, by pursuing vigorous investment-oriented policies, raise the share of investment in GNP even while continuing with policies of overall demand restraint.

The second supply-oriented approach is to increase the flexibility of labor and product markets by reducing unnecessarily burdensome regulation, by increasing competition within and across borders, and by improving policies for structural adjustment in industry and agriculture. Policies, for instance, that improve flexibility in labor markets through job training or other programs, or which reduce the downward rigidity of wages in the face of high unemployment, achieve several important objectives simultaneously. They reduce unemployment directly by easing frictional unemployment and stimulating the demand for labor in sectors where prevailing wage rigidities have made hiring unprofitable. Perhaps more important, greater labor-market flexibility increases the speed with which restrictive demand policies translate into lower rates of inflation. To the extent that this occurs, higher rates of real growth can be accommodated. Even if demand policies do not change so that nominal income growth is limited, real income growth is larger to the extent that inflation is less. Moreover, if inflation declines more quickly in response to demand restraint, both the severity and the duration of the needed demand restraint are reduced, thus further improving the prospects for higher growth and a more rapid absorption of the unemployed.

Other examples of policies that enhance flexibility include U.S. efforts in deregulation and regulatory reform, the progressive dismantling of price controls in France during the past several years, and the moves in some countries to allow more realistic pricing policies in nationalized sectors.

There are serious difficulties to be overcome, however. In many cases governments lack the tools for evaluating the costs and benefits of structural policies. Divisions of authority among agencies with different objectives or loyalties make coherent policy formulation, implementation, or evaluation difficult. There is, in general, a need to increase the "transparency" of government operations—both internally, so that governments themselves can come to a clearer perception of just what it is they are doing, and externally, so that those

outside government, both at home and abroad, can form a clearer idea of what is to be expected. A further inescapable difficulty is that strong political pressures arise to influence structural policies when potential gains or losses to particular sectors are at issue. More powerful techniques to enhance transparency can serve not only to improve the quality of decisionmaking, but also—by making costs and benefits clearer—to stiffen the resistance of governments to unbalanced political pressure.

Energy Policies

Increased investment in alternative energy sources, efforts to promote more efficient use of existing supplies, and measures to reduce vulnerability to supply disruptions are needed to improve growth prospects over the longer-term. So long as oil supplies are scarce and uncertain, and energy markets lack the flexibility to absorb disruptions in the flow of oil, the risk of recurrent oil-price shocks cannot be avoided.

While the market incentives provided by sharply higher energy prices will furnish the major impetus for many of the needed adjustments, government actions will also be needed in some cases. The development of some new sources of energy, for instance, may require government participation because of the long lead-times, very large scale, and technological risks associated with them. Furthermore, the building up and management of petroleum stockpiles requires a government role since private stocking provides insufficient protection against oil-supply disruptions for the reasons discussed in Chapter 2.

There is also a strong rationale for a broader international coordination of energy policies. The potential gains from a more rapid expansion of U.S. coal production, for instance, are increased if other countries, anticipating the increased availability of coal, at the same time increase the capacity of their electric-power systems to use coal instead of other fuels. More broadly, part of the social benefits that arise when one country increases its energy production or reduces its energy demand accrue abroad, since energy consumers in all countries will benefit from the resulting reduced pressure on world energy prices. Joint projects and other forms of international cooperation may therefore be particularly appropriate in the field of energy.

The rationale for international coordination of government policies is especially strong with regard to oil stocks. If countries attempt to increase their own security by bidding for stocks and thereby create conditions of excess demand, all countries will suffer the consequences of sharply higher oil prices. Conversely, the willingness of one country to use existing stocks in times when markets are tight may depend on the extent to which other countries do the same. A

coordinated use of stocks may forestall a surge in oil prices, but few countries would act individually to draw down their stocks if they thought that others would then exploit the opportunity to protect or increase their own.

Incomes Policies

The adoption of policies to influence directly the process of wage and price setting is another approach to improving economic performance. Elsewhere in this *Report* the possibilities as well as the problems of implementing tax-based policies to encourage wage and price restraint in the United States are discussed. The major foreign countries do not now have formal incomes policies—though interest in using them has at various times been evident in several of them. It does appear to be the case, however, that those countries with the greatest downward flexibility in wage and price behavior, and hence also the lowest inflation rates, have a stronger social consensus than those countries with higher inflation. Ironically, it may be that explicit incomes policies would be easiest to implement in those countries where the implicit social consensus makes them least needed.

MONETARY POLICY AND EXCHANGE RATES

In addition to the fundamental economic and social issues involved in designing and carrying out sustained policies of demand restraint and supply enhancement, there are problems of a more technical nature that must be dealt with. One of these, which has received a good bit of attention recently, arises from the interaction between domestic monetary policy and the foreign-exchange markets.

If it is perceived that different countries, through their monetary and fiscal policies, have significantly different objectives, especially with respect to inflation, then exchange rates are likely to move. For instance, if some countries use monetary policies aggressively to achieve a rapid decline in inflation while others pursue more expansionary policies that are judged likely to increase inflation, the currencies of the former countries will tend to appreciate against those of the latter. Such exchange-rate adjustments are both unavoidable over the longer run and necessary to prevent the building up of distortions in relative price levels across countries, so long as different policy objectives persist.

Exchange-rate adjustments do not always proceed smoothly, however. Exchange markets may at times become disorderly, and exchange rates may move more sharply than necessary to accommodate differences in policies or in other fundamental economic variables. Such risks probably increase when the divergence in policy objectives becomes more marked and expectations about future economic performance correspondingly more diverse. Particularly when inflation

rates are high, differences in policy objectives may have a magnified effect on exchange rates if the countries that attempt to ease policy are viewed as giving up on the fight against inflation. For these reasons, some combination of broad consistency in economic policy objectives and cooperation in exchange-market policies is probably necessary to ensure the smooth functioning of the international monetary system.

As discussed earlier in this chapter, most countries are now pursuing broadly similar policies of demand restraint aimed at reducing inflation, and exchange markets have not been subject to major disruptions over the past 2 years. Monetary policies in many countries have focused on keeping the rates of money growth—differently defined in different countries—on target or within target ranges. These targets are themselves set with an eye toward steady reduction in the rate of monetary expansion so as to be consistent with the hoped-for reduction in inflation. Even though monetary policies have shared the same general objectives and approach, they have had different consequences in different countries with respect to both the level and the variability of interest rates. For various reasons these differences have been particularly wide in the recent past and have raised several questions about the relationship between domestic monetary policies and the variability of exchange rates.

To the extent that actual and expected rates of inflation differ across countries, nominal rates of interest tend to be different even when monetary authorities pursue policies that restrict nominal demand growth to a comparable extent. If different interest rates simply reflect differences in underlying inflation expectations, international financial markets should not, in theory, be disrupted. Market participants would recognize that higher nominal yields on assets denominated in some currencies do not necessarily translate into higher rates of return if exchange rates move over time to reflect differences in inflation. For a variety of reasons, however, this mechanism may not always function smoothly. Purchasing power parities do not hold with any great precision in the short or even the more medium term. Therefore, market participants need not assume that depreciation will offset higher nominal yields over the period during which the asset is held. Furthermore, if asset holders perceive that monetary authorities are likely to resist incipient currency depreciations through intervention, they may be tempted to seek out high nominal returns on the expectation that they will be able to unwind their positions before the depreciation occurs. In such circumstances downward pressure on the exchange rates of countries with lower inflation and nominal interest rates might arise.

The large differences in monetary structures and instruments of monetary control across countries may also produce substantial differences in real interest rates for comparable degrees of monetary restraint. In particular, monetary systems which rely more heavily on nonprice rationing effects to achieve restraint may tend to have lower real rates of interest than those which have fewer such rigidities (though such rigidities may also cause greater dispersion of interest rates across different financial markets). Where such real interest rate differences arise, exchange-rate pressures may emerge even when nominal interest rates are properly discounted for inflation.

A second problem on which attention has focused has been the greater volatility of interest rates. As discussed in other chapters of this *Report*, both the change in the operating procedures of the Federal Reserve and major changes in the structure of U.S. financial markets have led to increased variability in U.S. interest rates. If foreign exchange markets are highly sensitive to interest rate movements, then variations in U.S. interest rates may lead either to greater variability in the exchange rates of other countries vis-a-vis the dollar or else to greater fluctuations in their interest rates. Of course, a reduction in the volatility of interest rates in the United States would be desirable on domestic grounds as well, if it could be accomplished without compromising the ability of the Federal Reserve to achieve its monetary growth objectives.

Although it is clear that considerations of exchange-rate volatility may sometimes reduce the freedom of monetary authorities to conduct monetary policies solely on the basis of domestic objectives, the problem may have been overstated in recent public discussions. Moderate movements in exchange rates, even if not strictly necessary from the perspective of fundamental economic conditions, need not impose significant costs on economic performance. Furthermore, if longer-run expectations concerning inflation and current-account balances are such as to provide stability to exchange rates, interest rate differences are not likely to be a major and continuing source of trouble.

The strength of the dollar in the latter part of 1980, for instance, reflected not only high interest rates but also the strong current-account position of the United States. At the same time, the weakness of the German mark, not only vis-a-vis the dollar but also against the other currencies of the European Monetary System, was also due to the large and unaccustomed German current-account deficit in 1980. The yen, to take another example, strengthened during the second half of last year and yet further in early 1981 despite a lowering of Japanese interest rates and a large, although declining, current-account deficit. This strength probably reflects the relatively buoyant

Japanese trade performance in volume terms, and also perhaps the ability of the Japanese authorities to attract OPEC funds. Again, the continued strength of sterling during 1980 was only in part the result of high nominal interest rates. Oil independence, the strengthening current-account position, and the general credibility of the British government's commitment to policies of restraint were also important.

To sum up, it appears that even with broad consistency in monetary policy objectives, problems can sometimes arise from the potential flow of funds across borders in response to differences in nominal interest rates. While the threat of such flows can complicate the conduct of monetary policy, this threat need not be so severe as to deprive carefully managed monetary policies of the flexibility they need to meet domestic objectives. Flexibility in monetary policy may, of course, occasionally require somewhat greater fluctuations in exchange rates than would otherwise be the case, but if fundamental economic conditions are such as to promote stability, such movements should not pose major problems.

CHALLENGES TO THE INTERNATIONAL FINANCIAL SYSTEM

The international community possesses a marvelously articulated set of private and public financial institutions through which funds are channeled from short-term lenders to long-term borrowers, from surplus to deficit countries, from one currency to another, and from capital-rich countries to capital-poor developing ones. The smooth functioning of this financial system has helped to make possible a rapid expansion of international trade and a relatively sizable transfer of resources to developing countries, both of which have contributed importantly to postwar economic growth and development. While the system has periodically required attention to keep it up to date with changing financial conditions, it has adapted and performed its critical functions well over the last three-and-a-half decades.

The huge increase in the volume of international financial flows occasioned by the recent oil-price rise, following upon a similar increase only 5 years earlier, has placed a major strain upon international financial institutions. Making sure that these institutions can continue to conduct vitally needed financial transfers soundly and efficiently is a second major challenge to economic policymaking in the years immediately ahead. If the needed transfers of resources from surplus to deficit countries are not made, or if they occur in ways that permit countries to avoid the painful adjustment to higher oil prices, the prospects for sustainable world economic growth and development will be seriously harmed.

The volume of international financing is reflected in Table 32, which describes current-account positions, net of official transfers, for broad country groupings, as compiled and projected by the OECD. The table provides an indication of the orders of magnitude involved, but specific numbers should not be overemphasized since even the historical numbers are subject to substantial margins of error. The projections for 1981 are particularly uncertain because the assumption of a constant real oil price that underlies these projections is at risk on account of the Iran-Iraq struggle.

Very large financing needs will persist over the next several years. While the OPEC surplus is expected to decline if oil prices do not rise sharply again, the decline will be more than matched by a projected improvement in the current-account positions of the larger OECD countries. The deficits of the smaller OECD countries will remain roughly unchanged at levels that—while broadly financeable—are nevertheless viewed as a problem by the countries themselves. The already substantial deficits of a number of the non-oil developing countries are projected to rise further, but whether financing on the scale implied by such deficits will be forthcoming must remain a question of serious concern.

TABLE 32.—*Global current-account balances, exclusive of official transfers, 1978–81*

(Billions of U.S. dollars; OECD basis)

Country	1978	1979	1980 ¹	1981 ²
OECD.....	28	-13	-47	-12
Big Seven ³	35	2	-14	21½
Other.....	-7	-15	-33	-33½
OPEC.....	5	70	120	86
Non-oil developing countries.....	-30½	-47	-62	-69
Other ⁴	-9½	-3	-6	-9
Residual ⁵	7	-8	-5	4

¹ Preliminary.

² OECD projection.

³ United States, Japan, Germany, France, United Kingdom, Italy, and Canada.

⁴ Centrally planned economies, Gibraltar, Malta, South Africa and Yugoslavia.

⁵ Reflects statistical errors and asymmetries. Given the very large gross flows of world balance of payments transactions, statistical errors and asymmetries easily give rise to world totals (balances) that are significantly different from zero.

Source: Organization for Economic Cooperation and Development (OECD).

At an aggregate level, of course, the borrowing needed to finance deficits must be matched by the lending that surplus countries undertake. The relative ease, compared to expectations, with which the "recycling" of funds was carried out after the first oil-price shock no doubt owes a great deal to this "adding-up" property. The sharp increases in liquidity arising from massive inflows of OPEC funds into the major national and Eurocurrency banks provided the funding for the large increase in lending by these banks to the deficit countries.

No "Say's Law" operates in international financial markets, however, to assure that desired lending matches intended borrowing on a country-by-country basis. Much of the money available for lending comes from countries, especially OPEC countries, who wish to place their funds in short-term liquid deposits. But much of the borrowing, especially on the part of newly industrialized countries with relatively fragile debt-servicing capacity, is for long-term needs. Between these two different sets of preferences stand the intermediaries—some official international institutions and some international capital markets, but principally the large private banks of the industrial countries which accept liquid short-term deposits, make illiquid long-term loans, and in return for the profits they earn bear most of the risks involved. Channels of intermediation, however, can become clogged or overburdened. Perceptions of risk may limit the willingness of intermediaries to expand their lending to certain countries, or high borrowing costs may simply preclude countries with low incomes from borrowing, since they lack the resources needed to service this debt.

FINANCING THE DEFICITS OF THE NON-OIL DEVELOPING COUNTRIES

The broad financing pattern for the non-oil developing countries over the period from 1973 to 1979 is shown in Table 33, taken from IMF compilations. The character of the flows that finance these countries' deficits has changed markedly since 1973 when a large share of the financing was with funds, such as government transfers, that did not create debt. Since 1975, however, deficit financing has come to depend increasingly on sources that do create debt, especially on long-term borrowing on market terms from private sources. Beginning in 1979—and partial evidence suggests the trend continued into 1980—the share of private long-term financing declined. Offsetting that decline were a small rise in official financing, a stronger increase in short-term borrowing, and a slowing of reserve accumulation.

The aggregate data in Table 33 mask considerable diversity among countries, but two main groups can be identified. One group consists of the low-income developing countries which, largely unable to afford market terms, rely heavily on official financing on concessional terms. For them the continued availability of official finance on affordable terms is a major concern. In particular, the expansion of World Bank resources through the Sixth Replenishment of its soft-loan affiliate, the International Development Association (IDA), is critical for these countries. Yet without the approval of the U.S. Congress, IDA resources cannot be replenished. Unfortunately, that approval did not come out of the post-election Congressional session. If replenishment is not forthcoming, IDA will exhaust its commitment authority in March, and it will have no resources with which to meet the rising

requirements of the low-income countries it serves. Speedy action by the new Congress is therefore essential.

TABLE 33.—*Non-oil developing countries: current-account financing, 1973–79*

(In billions of U.S. dollars)

Item	1973	1974	1975	1976	1977	1978	1979
Current-account deficit ¹	11.5	36.9	45.9	32.9	28.6	35.8	52.9
Less: Financing through transactions that do not affect net debt positions ²	9.8	^a 13.2	11.7	12.1	14.4	16.2	19.4
Plus: Accumulation of reserve assets (decumulation —)	9.3	1.2	–2.0	12.7	11.9	18.2	11.0
Equals: Net external borrowing ⁴	11.0	^a 24.9	32.2	33.5	26.1	37.8	44.5
Long-term from official sources, net ⁵	5.5	^a 9.6	11.4	10.2	12.4	13.3	15.9
Other long-term borrowing from nonresidents, net	6.6	10.2	14.7	17.6	15.8	25.1	23.4
From financial institutions ⁶	4.0	8.6	9.2	10.9	15.6	19.3	17.3
Other, net ⁶	2.6	1.6	5.5	6.7	.2	5.8	6.1
Use of reserve-related credit facilities, net ⁷	.3	1.6	2.4	4.3	.4	.7	.2
Other short-term borrowing, net	(*)	5.1	6.5	3.9	–.8	1.1	5.0
Residual errors and omissions ⁸	–1.4	–1.6	–2.8	–2.5	–1.7	–2.4	

¹ Net total of balances on goods, services, and private transfers (with sign reversed).

² Net unrequited transfers, net direct investment, SDR allocations, gold monetization, and valuation adjustments.

³ Excludes the effect of a revision of the terms of the disposition of economic assistance loans made by the United States to India and repayable in rupees, and of rupees already acquired by the U.S. Government in repayment of such loans. The revision has the effect of increasing government transfers by about \$2 billion, with an offset in net official loans.

⁴ Includes any net use of nonreserve claims on nonresidents, errors and omissions in reported balance of payments statements for individual countries, and minor deficiencies in coverage.

⁵ Public and publicly guaranteed borrowing only.

⁶ Principally bond issues (public and publicly guaranteed borrowing only) and supplier credits, net of acquisitions of long-term assets.

⁷ Comprises use of Fund credit and short-term borrowing by monetary authorities from other monetary authorities.

⁸ Errors and omissions in reported balance of payments statements for individual countries, plus minor omissions in coverage.

^{*} Less than \$50 million.

Source: International Monetary Fund.

A different set of concerns arises for other developing countries such as the exporters of manufactured goods whose long-term deficit financing has come to a large extent from the private capital markets. For them it is obviously critical, first, whether the slowdown in long-term bank lending since 1978 is a “pause” that will shortly be reversed or a more permanent development; and, second, whether official resources—on which the poorer countries often have first claim—will be adequate to fill any remaining gap.

Private Financing

It is probable that the slowing of long-term bank lending to developing countries reflects both a greater unwillingness on the part of the banks to lend and an increased reluctance on the part of some developing countries to borrow. The relative importance of these two factors is hard to establish. There is considerable evidence that a number of developing countries have deferred borrowing. Whether they have done so because of high interest rates or, perhaps more critically, because they are unwilling to accept higher spreads over the London interbank rate (LIBOR) is unclear. Higher spreads raise

the cost of the loans, and they may also be interpreted in the financial markets as evidence that the borrowers are less creditworthy than countries borrowing at lower spreads. There are also clear indications of reluctance on the part of the banks to continue to increase their exposure in developing countries, either because of portfolio management considerations or because of pressures from bank examiners to limit and diversify risks. Numerous factors affect the willingness of banks to extend loans to particular countries. Chief among these are the external debt which a country has already incurred and judgments by potential lenders about the risk that a country may become unable to service its debt.

The problem of country risk arises most acutely if borrowing is perceived to lead to debt-service payments which can be managed only by still larger borrowing in the future. Several implications flow from this perspective.

First, the willingness of banks to continue lending depends importantly on their perception of the longer-run economic prospects of the borrowing country. A country that borrows to finance consumption—including the consumption of petroleum—is a riskier proposition than one borrowing to finance productive investment. The investment generates a return that can, in turn, be used to service the debt.

Second, while the additional loan needs of many borrowers stem from the need to pay for an increased oil bill, the ability to obtain financing depends partly on how well the borrower is deemed to be adjusting its economy to the reality of higher oil prices. To some extent, the greater the signs of progress toward reducing oil imports or expanding exports to pay for them, the easier it is to finance the remaining deficit.

Third, banks' concerns about debt rescheduling may be an important influence on the pattern of lending, but the direction of influence is ambiguous. If countries which were unable to service all of their external debts were to reschedule their official debts while continuing to meet payments to private lenders, the banks would have little incentive to assess borrowers' long-term prospects, or to lend in ways that foster appropriate adjustment by borrowers. Instead, banks have a clear incentive for caution when they are required to participate in rescheduling and to bear some reasonable portion of the burden. Banks are then more careful about making loans to countries where the longer-term prospects are uncertain. For this reason, the United States and other official creditors have insisted on requiring countries experiencing debt crises to seek relief from private as well as official creditors in order to assure a comparable sharing of burdens among all categories of creditors. When rescheduling is unat-

tractive to banks, however, a somewhat contradictory possibility arises: banks can defer rescheduling by continuing to lend. Delay may enable both borrower and lender to ride out a troubled period, but it can also exacerbate the troubles to be faced later on. Of course, banks' willingness to postpone rescheduling in this manner is limited by the increased risks involved. Furthermore, bank examination procedures—particularly in the United States and increasingly in other countries as well—are designed to signal the emergence of excessive exposure to risk.

Fourth, the future scope for bank lending will depend strongly on the continued expansion of world trade and the ability of developing countries to participate fully in that expansion. If export opportunities are blocked, then even borrowing for productive investment may not be sustainable because such investment may not yield, either directly or indirectly, enough foreign exchange to service the debt. Conversely, with ample trade opportunities, developing countries can earn the foreign exchange that enables them not only to service existing debt but also to demonstrate their continuing dependability as borrowers. This interaction provides one of the major avenues for developing countries to accelerate adjustment without sacrificing longer-run growth prospects.

Although it is possible to set forth in general terms the considerations that will determine the extent of private bank lending to the developing countries, it is impossible to predict with any precision or confidence the extent to which the recent pause in long-term lending will be reversed. On balance, the likelihood of somewhat reduced growth in private lending is high enough to place great importance upon the role of official agencies like the International Monetary Fund (IMF) and the World Bank.

Official Financing

Over the past year, the ability of the IMF and the World Bank to take the lead in promoting financing and adjustment patterns that are appropriate in current economic circumstances has been strengthened. The resources available to these institutions have been increased, and their operating procedures have been modified.

The role of the IMF has been substantially enhanced. A 50-percent increase in quotas, negotiated in 1978, went into effect on January 1 of this year. It will raise substantially the liquid resources available to the Fund over the coming years. Beyond this, the IMF is exploring the possibility of further increasing its resources by borrowing—first from member countries, particularly OPEC countries with large surpluses, but, if appropriate, from private sources as well. While such borrowing could not, and should not, supplant quotas as the primary source of Fund liquidity, it could play an important supporting role.

At the same time, access to the IMF by countries facing actual or incipient balance of payments difficulties has also been substantially increased. The quota increase itself has this effect, and it has been complemented by adaptations in the structure of Fund lending programs. The adaptations effectively increase the cumulative amounts that countries can borrow in relation to their quotas and lengthen the adjustment period for IMF supported programs. Finally, increased emphasis is being placed on structural considerations in the formulation of IMF stabilization and adjustment programs.

World Bank resources have also increased, albeit without full U.S. participation. In the last days of its 1980 session, Congress did appropriate \$328 million toward the Bank's 1977 Selective Capital Increase. But the Congress has yet to approve the U.S. share of the 1980 General Capital Increase. This increase went into effect in October 1980 with the formal agreement of 75 percent of the Bank's voting power.

The World Bank, too, has modified its programs in the past year. While continuing to expand its traditional project and sector lending, the Bank has begun to develop a new type of lending program aimed specifically at structural adjustment. This lending is intended to complement the shorter-term borrowing that countries engage in for balance of payments reasons with long-term funding to restructure economies in ways that will strengthen their underlying external positions. Furthermore, ways are actively being sought—perhaps through a new energy affiliate of the Bank—to increase sharply the resources available for energy exploration and development in developing countries. Over time, the resulting increase in domestic energy availability will tend to ease the financial burden of developing countries by lowering their oil imports. Increased world supplies and more suppliers may also make future energy price shocks less likely.

The extent to which the official institutions will be able to meet the future financing needs of the non-oil developing countries will depend in part upon the size of the gap which must be filled after private financing and bilateral assistance—particularly OPEC assistance for oil-deficit countries—has been accounted for. The size of this gap is very difficult to predict. But the recent expansion in the resources of the official institutions and their demonstrated capacity to adapt to changing needs suggest that they are capable of dealing with a very wide range of possible problems.

CHALLENGES TO INTERNATIONAL TRADE RELATIONS

The progressive dismantling of trade restrictions during the post-World War II period and the resulting rapid growth of world trade

were of central importance to the worldwide rise in prosperity during the 1950s and 1960s. But the open trading system has come under increasing pressure in the 1970s. Economic growth has slowed, unemployment rates have risen, and the balance of payments positions of oil-importing countries have deteriorated. As a result, protectionist sentiments have strengthened, and the promotion of exports has become a more explicit aim in many countries. Furthermore, mounting structural difficulties in a number of key sectors have encouraged the view that cartelization or market-sharing agreements among countries can ease the burdens of adjustment. As a consequence, the climate for trade has become more clouded despite the ratification in 1979 of the agreements reached in the Multilateral Trade Negotiations. These agreements strengthen the international trading system by limiting the use of trade-restrictive practices and improving the mechanisms for the settlement of disputes and thus represent an important step forward. They are unlikely to prevent an intensification of trade frictions, however, if the underlying commitment of governments to open trade is eroded.

An important but perhaps inevitable cause of the emergence of a more difficult environment for trade is the decline in the relative dominance of the United States in the world economy. In the early post-World War II period the United States was in a strong position to promote a more liberal trading order without much regard to strict reciprocity. Because imports constituted only a small share of the U.S. market, the growth in imports that freer trade entailed was not viewed as disruptive. At the same time, the demand for U.S. exports was strong because foreign production capacities had been damaged by the war and because American goods embodied technologies not available elsewhere. Thus, open trade was not perceived as a threat to the overall U.S. trade position. For other countries, on the other hand, the promise of increased access to the vast U.S. market made the opening of their own borders to imports seem a favorable exchange.

While the conditions that made it so easy to support no longer prevail, open trade nevertheless confers substantial benefits on the world economy. Preservation of an open trading system must therefore become a truly multilateral effort and the shared responsibility of the major trading nations. It is probable that few governments today can effectively resist taking actions to redress what are viewed domestically as the unfair trade practices of others. All countries must therefore practice self-restraint, not only in the traditional sense of minimizing protectionist measures against imports, but also in avoiding measures that artificially promote exports at the expense of other countries. It must be recognized that the only real alternative

to closer cooperation is to risk a cycle of trade retaliation that would leave all countries substantially worse off.

Three specific challenges to open trade are taken up in the following pages: the heightened pressures to use trade barriers to save domestic jobs, the increased use of direct and indirect subsidies to promote exports, and the emerging reliance on market-sharing arrangements to ease adjustment.

PROTECTION AND EMPLOYMENT

The pressure to protect domestic sectors from import competition is, to a large degree, a pressure to preserve jobs. Imports are seen as substituting foreign for domestic employment and income abroad for income at home. This pressure increases when economic growth slows and unemployment levels rise, since alternative employment possibilities are reduced.

Job losses of course occur continually within an economy as some sectors contract. But meanwhile new jobs are being created in expanding sectors. International trade is but one of the pressures behind such shifts. Indeed, the evidence suggests quite strongly that, at least in the United States, changes in consumer demands and differential productivity gains from capital investment and technological change have been far more important than increased imports in accounting for relative employment declines in lagging sectors.

But regardless of the source from which the pressures for adjustment come, intersectoral shifts in employment cannot be achieved without transition costs. The skills no longer needed in declining sectors may not match the skills required in growing sectors. The regional distribution of employment opportunities may shift, but workers may not be in a position to move. And, even if workers who lose jobs find new ones, their wages and job satisfaction may be lower if specialized skills acquired over many years are made obsolete. The more rapid the pace of adjustment, furthermore, the greater these transition costs will be, since less of the adjustment can then be accomplished through natural employee attrition and ongoing demographic shifts. Because of transition costs, governments are often tempted to intervene in an attempt to slow the pace of adjustment. Such policies can perhaps be justified when the pressure for rapid adjustment is very strong or when it is thought that the pressure will subsequently be reversed. The risk is, however, that government efforts to ease adjustment may have the effect of deferring or preventing it. Experience suggests that this has often been the case. Such outcomes are costly. Although transition costs are avoided for a time, productivity is impaired, inefficiency is increased, inflationary pres-

asures are strengthened, and in the longer term employment too may suffer.

In seeking a balance between justified intervention to reduce transition costs and undue protection of uneconomic sectors, careful assessment of the broad range of costs and benefits is needed. This is particularly the case with regard to the use of trade-restrictive policies, for three reasons.

First, pressure to restrict imports can easily arise even when imports are not themselves the major threat to existing jobs because the tools are more readily at hand to restrict imports than to deal with other adjustment problems. In the United States the President has considerable discretionary power to impose trade restrictions—subject, however, to prior findings of injury by the International Trade Commission. In other countries too, import restriction is generally easier to implement than adjustment policies requiring government budget resources.

Second, there is mounting evidence that trade protection is a very expensive way to preserve jobs. In case after case that has been examined, the cost to consumers per job saved—that is, the extra costs faced by consumers in the form of higher prices when imports are restricted—has turned out to be at least several times higher than an average worker's income. Although these consumer costs are large in the aggregate, in no one instance do they seem large on a per capita basis. As a consequence they are not highly visible and therefore easy to overlook.

Finally, trade restriction, like other forms of domestic protection but more clearly so, impairs employment prospects over the longer run. Jobs saved in the protected sectors are saved in part at the expense of jobs elsewhere in the domestic economy. Higher prices for protected goods reduce consumers' ability to purchase other goods, and thereby limit employment growth. If imports are restrained, export opportunities and employment in the export sector are also reduced—directly if foreign countries retaliate, and indirectly even if they do not, because the exchange rate tends to appreciate to restore balance between exports and imports over the longer term. Moreover, trade restrictions increase prices directly and further exacerbate inflation by limiting productivity growth. As a result, the ability of governments to pursue expansive policies to support employment is further reduced. Thus the jobs saved by trade restrictions are likely to be matched by job losses elsewhere. As is so often the case, however, the jobs saved are immediate, specific, and highly visible; the jobs lost are in the future, diffused throughout the economy, and almost invisible.

While all countries, in attempting to balance long-term gains against short-term pressures, may find the need for trade-restrictive actions compelling from time to time, the risks are that such policies will be resorted to excessively. These risks become considerably larger to the extent that other countries aggressively use subsidies to promote exports. The following section takes up this issue.

EXPORT SUBSIDIES

Countries subsidize exports directly or indirectly for a variety of reasons. Faster export growth is seen as a way of overcoming the balance of payments deficits that higher oil bills have caused for many countries. Subsidies may form part of an industrial strategy to promote the growth of key sectors and to exploit economies of scale when they dictate a global marketing approach. Subsidies may also be a counterpart to other policies, for instance, policies to limit excess capacity and job losses in declining sectors by selling abroad. Subsidies to exports can also arise indirectly—for instance, from domestic policies that keep the price of energy, and hence the cost of production in energy-intensive sectors, artificially low. Or they can arise when investment incentives to particular regions or industries reduce the cost of capital to firms that produce certain goods.

The Subsidies Code that was negotiated in the Multilateral Trade Negotiations places certain restrictions on the use of subsidies and permits the adoption of countervailing duties in cases where subsidies can be shown to cause injury to trading partners. However, given the various and often complex forms that subsidies can take, and the fact that subsidies of exports may often arise as by-products of policies directed at domestic goals, the Code by itself is unlikely fully to resolve the problems that subsidies sometimes create. Self-restraint among countries in the use of subsidies is therefore necessary. Two considerations are of critical importance in this regard. First, subsidies often end up losing their effectiveness in promoting exports. Initially, profits and employment in a subsidized activity will increase and a competitive advantage will emerge. Gradually, however, the extra profits that are created by the subsidy may be diluted by higher wages for the workers in that activity, or—if the activity is a large user of scarce resources—in higher prices for those resources. A familiar example is the bidding up of the price of farm land suitable for a particular crop when the price of that crop is supported by the government at higher levels. The bidding up of costs of production in this way ultimately tends to eliminate the competitive advantage that the subsidy provides, thus increasing pressures for yet further subsidization to restore the advantage and making removal of the subsidy increasingly difficult.

Second, the pressure for countries to match the subsidies provided by other countries means that the opportunity to increase market shares through subsidies is far less than it appears to each country in isolation. This consideration is particularly important in the area of export-credit subsidization, which has increased sharply in recent years. Most of the major industrial countries have official export-credit agencies that provide medium and long-term financing at fixed rates of interest for "big ticket" exports, such as power plants, aircraft, and manufacturing plants. These interest rates have not risen in step with rises in market rates, thus greatly increasing the subsidy element of such trade financing. Yet, because export agencies in all countries are under pressure to match or perhaps improve on the terms provided by others so as to help secure the sale for a domestic producer, the likely result is a costly standoff, with global overcapacity in subsidized sectors persisting. The heads of state of the major countries made a specific commitment at the Venice Summit in June of last year to bring export-credit rates more closely into line with market rates. Efforts to renegotiate an export-credit agreement based on this commitment failed, but negotiations may resume this year. In some countries—particularly some members of the European Community—it may not be clearly perceived how wasteful and counterproductive export-credit subsidies are.

MARKET SHARING

Antitrust laws in the United States prohibit firms from attempting to divide up markets by allocating market shares, formally or informally. The anticompetitive and price-raising consequences of such arrangements are well known. On an international level, however, there are increasing temptations for governments themselves to develop or to bless such market-sharing arrangements for sectors facing structural difficulties. The Multi-fiber Agreement, which sets a framework within which individual countries have negotiated a complex system of quotas on textile and apparel imports, is an example. Relatively longstanding agreements exist with respect to shipbuilding. The issue of automobile imports, so important in the United States, has also been of great interest and concern internationally—and indeed informal or formal industry agreements between European and Japanese auto producers are widespread.

The temptation to "organize" world markets when adjustment pressures arise is understandable. If a number of countries need to adjust, the pressures to assure that each country bears its fair share of the adjustment burden are powerful. Negotiated arrangements may appear both more effective and less confrontational than the use of formal grievance procedures under the General Agreement on Trade and Tariffs (GATT). As short-term responses to serious

threats of disruption, market-sharing arrangements may indeed be preferred if the alternative is a resort to predatory behavior.

There are serious risks, however, in following this course. First, the substitution of informal, ad hoc agreements for the more formal mechanisms of the GATT reduces the transparency of the trading system. The "rules of the game" become more complex and less visible to public scrutiny, and procedures for redress become uncertain. Second, such agreements may perpetuate themselves. In seeking to assure that adjustment is fairly distributed, they may in fact delay the needed adjustments and perpetuate the excess capacities that gave rise to the problem in the first place. Finally, such arrangements, by requiring balance among countries in the degree of adjustment, almost always guarantee that it is not the least efficient capacity which is eliminated.

NEEDED RESPONSES

Pressures on all countries to use trade policies to promote shorter-term gains for particular sectors, to ease the process of adjustment, or to protect jobs in sensitive areas will almost certainly remain acute. It is also quite certain that in some cases such pressures will not be resisted. Indeed a *simon-pure* attitude is unwarranted on the part of any country, and unrealistic when other countries also yield to such pressures. From a broader perspective, however, it is highly important to keep restrictive trade policies within circumscribed limits. First, the achievement of both higher exports and lower imports is not feasible—strictly so for the world as a whole, and to a very large extent for individual countries. The only effective choice is one between slow trade growth or more rapid trade growth, and the historical record makes clear that the latter is to be preferred. Second, it is imperative to aim for consistency in the formulation of policy. The overriding need in all countries is to reduce the current inflation, and also to reduce the inflation-proneness of economies that have become more inflexible and less competitive. Trade policies that aim for short-term protection intensify inflation directly by reducing competitive pressures, and they increase economic rigidities by sheltering excessive wages, profits, and other incomes in particular sectors from the discipline of the market. Better integration of trade policy into overall economic policy formulation is needed in all countries to provide a clearer perspective on its real costs and benefits.

Appendix A
REPORT TO THE PRESIDENT ON THE ACTIVITIES
OF THE
COUNCIL OF ECONOMIC ADVISERS DURING 1980

LETTER OF TRANSMITTAL

COUNCIL OF ECONOMIC ADVISERS,
Washington, D.C., December 31, 1980.

MR. PRESIDENT:

The Council of Economic Advisers submits this report on its activities during the calendar year 1980 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.

Cordially,

CHARLES L. SCHULTZE, *Chairman*
GEORGE C. EADS
STEPHEN M. GOLDFELD

Report to the President on the Activities of the Council of Economic Advisers during 1980

The Council of Economic Advisers was established by the Employment Act of 1946 to provide economic analysis and advice to the President and thus to assist in the development and implementation of national economic policies. The Council also advises the President with regard to decisions on other matters that affect the health and operations of the Nation's economy.

The enactment of the Full Employment and Balanced Growth Act of 1978—the Humphrey-Hawkins Act—substantially revised the chartering legislation of the Council of Economic Advisers for the first time since 1946. This revision left unchanged the basic mission of the Council of Economic Advisers but created a new framework for the government's pursuit of its economic policies. This act and its requirements were discussed in detail in the 1979 *Economic Report*.

Charles L. Schultze, Chairman, and George C. Eads, Member, continued to serve in these positions throughout 1980. On May 27, 1980, Lyle E. Gramley resigned to become a Governor on the Board of the Federal Reserve System. On August 20, 1980, Stephen M. Goldfeld became a Member of the Council. Mr. Goldfeld was formerly Professor of Economics at Princeton University.

RESPONSIBILITIES

The responsibilities of the Council of Economic Advisers have grown steadily as new economic problems have placed new demands on the Council and its staff. Over the last decade especially, the growing recognition that many "noneconomic" decisions have major consequences for our economy has led to a broadening of the Council's activities. Today, the Council is responsible for advising the President not only on Federal fiscal policies but also on policies affecting specific sectors of the economy, on regulation and regulatory reform, on energy policies, and on international economic policies.

Past Council Members and their dates of service are listed below:

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	
John D. Clark	Chairman	May 10, 1950	January 20, 1953.
	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.
Kernit Gordon	Member	January 29, 1961	December 27, 1962.
Gardner Ackley	Member	August 3, 1962	
	Chairman	November 15, 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.
William D. Nordhaus	Member	March 18, 1977	February 4, 1979.
Lyle E. Gramley	Member	March 18, 1977	May 27, 1980.

MACROECONOMIC POLICIES

From the outset, the Council's fundamental role has been to advise the President on comprehensive economic policies designed to achieve the government's objectives for price stability, employment, and output. To fulfill this responsibility the Council develops economic forecasts several times each year with the assistance of an Interagency Forecasting Committee. The members of this Committee include, in addition to the Council, representatives from the Office of Management and Budget and the Departments of the Treasury, Commerce, and Labor. This group, which is chaired by a Member of the Council, meets to analyze the outlook for individual sectors of the economy and to develop detailed economic forecasts for the period immediately ahead. The Chairman of the Council presents these forecasts to the Economic Policy Group (EPG), which is made up of the President's principal economic advisers and meets each week to discuss and develop the Administration's proposals touching on economic policy. The Chairman of the Council of Economic Advisers is a member of the EPG and of its steering group.

In the final months of each year, during the preparation of the President's annual budget, the Council works with other members of the EPG to develop and present to the President proposals for both the stance and the design of Federal fiscal policies during the coming fiscal year. The Council monitors the progress of the economy and offers advice on when changes in fiscal policies are in order. Advising the President on macroeconomic policy has remained one of the Council's major responsibilities.

The Chairman of the Council took an active role in the March budget revisions, in the decision to invoke the Credit Control Act, and in the design of other steps taken at that time to halt inflationary expectations.

In addition, the Council continued its involvement in the program of voluntary pay and price standards, including monitoring the progress of the second program year. On November 12 the Chairman of the Council of Economic Advisers resumed the position of Chairman of the Council on Wage and Price Stability.

During the late spring and summer, the Council actively participated in the development and presentation of the Administration's Economic Revitalization Program.

The Chairman of the Council also chairs the Interagency Committee on Housing and Housing Finance. In 1980 the Council again coordinated special surveys of the conditions in housing markets.

The Council co-chaired with the Office of Management and Budget a congressionally mandated study on the indexing of Federal programs. The Council chaired the subgroup on issues involved in the choice of an index. This report will be presented to the Congress at the beginning of 1981.

MICROECONOMIC POLICIES

The Council of Economic Advisers has become increasingly involved in the analysis of microeconomic issues—the economic developments and the policy actions that affect individual industries, markets, or sectors of the economy. In 1980 the Council took part in formulating and articulating the Administration's policies on agriculture, energy, hospital cost containment, industrial adjustment, regulation, regulatory reform, and international trade.

Especially important in 1980 were the interagency studies of the automobile and steel industries. The Council took an active role in these studies and in the development of policy responses to problems in these two industries. In addition, the Council is a major participant in an ongoing study of the potential economic consequences of, and policy responses to, a major oil-supply disruption.

In 1980 the Council continued to chair the Regulatory Analysis Review Group (RARG). This interagency group was created late in

1977 to review selected analyses of the economic effects of major regulatory proposals. The President has ordered that each major regulatory proposal issued by a nonindependent regulatory agency must be accompanied by a regulatory analysis. The agency originating the proposal develops the analysis and makes it available in draft form for public comment before the final regulation is issued. During the period for public comment the Regulatory Analysis Review Group evaluates a select few of these regulatory analyses and files its appraisal in the agency's record of public comment.

In 1980 eight regulations were reviewed by RARG: the Environmental Protection Agency's air carcinogen policy, its guidelines for water effluents in the leather tanning and finishing industry, its visibility regulations for Federal Class I areas, and its ambient air quality standards for carbon monoxide; the Department of Energy's building energy performance standards and its consumer appliance energy efficiency standards; the Department of Education's rules concerning the education of students not proficient in English, and the Department of Housing and Urban Development's revisions of its minimum property standards. At year's end the Environmental Protection Agency's premanufacture notification requirements for new chemical substances were being reviewed. Together with the staff of the Council on Wage and Price Stability, the Council's staff served as the analytic staff for the RARG. In addition, the Council and the staff continued their active involvement in proposed regulatory reform legislation and in the development of administrative means to lessen the burden of regulation.

INTERNATIONAL ECONOMIC POLICIES

During 1980 the Council of Economic Advisers again took an active part in international economic affairs. The Chairman of the Council continued to serve as Chairman of the Economic Policy Committee of the Organization for Economic Cooperation and Development (OECD). As such, he chaired two meetings of senior economic officials from OECD member governments to assess appropriate economic policies following the sharp rise in energy prices and to achieve improved policy coordination among countries.

In consultation with senior officials from other countries, the Chairman also prepared a position paper on economic policy issues for the Venice Summit.

The Council is active in the OECD Economic Policy Committee's working parties on short-term economic prospects, balance of payments adjustment, and macroeconomic structural and policy analysis. Council Members or staff economists represent the U.S. government at periodic meetings of these working parties during the year.

A Member of the Council represents the U.S. government at meetings of the OECD Special High-Level Group on Positive Adjustment Policies, and in 1980 made an extended presentation on U.S. structural policies to this group. He also chairs a task force of the Special Group that has been examining the alternatives used by governments to identify and evaluate subsidies.

PUBLIC INFORMATION

The annual *Economic Report* is the principal medium through which the Council informs the public of its work and its views. It is also an important vehicle for presenting and explaining the Administration's economic policies, both domestic and international. Distribution of the *Report* in recent years has averaged about 50,000 copies. The Council also assumes primary responsibility for the monthly *Economic Indicators*, a publication prepared by the Council's Statistical Office, under the supervision of Catherine H. Furlong. The Joint Economic Committee issues the *Indicators*, which has a distribution of approximately 10,000 copies. Information is also provided to members of the public through speeches and other public appearances by the Chairman, Members, and staff economists of the Council. Finally, in 1980 the Chairman and Members made 13 appearances before Committees of the Congress to testify on the Administration's economic policies.

ORGANIZATION AND STAFF OF THE COUNCIL

OFFICE OF THE CHAIRMAN

The Chairman is responsible for communicating the results of the Council's work and for providing advice to the President. This duty is performed through discussions with the President and in written reports on economic developments. The Chairman also represents the Council at Cabinet meetings and at many other formal and informal meetings of government officials. He exercises ultimate responsibility for directing the work of the professional staff. On November 12, 1980, the Chairman replaced Alfred E. Kahn, who had resigned, as Chairman of the Council on Wage and Price Stability.

COUNCIL MEMBERS

The two Council Members directly supervise the work of the Council's professional staff and are responsible for all subject matter studied by the Council. They represent the Council at numerous meetings of public and private groups, and they assume major responsibility for the Council's involvement in the activities of the government that affect the economy.

The Chairman and the Council Members work together on most policy issues. Operationally, however, responsibility over major topics of concern is divided between the two Members. Mr. Eads has supervised microeconomic analysis, including analysis of policies related to such matters as energy, agriculture, social welfare, and international trade. Mr. Eads also oversees regulatory reform activities. Mr. Goldfeld has the primary responsibility for macroeconomic analysis, including international monetary developments and the preparation of economic forecasts, and for labor market policies.

PROFESSIONAL STAFF

At the end of 1980 the professional staff consisted of the Special Assistant to the Chairman, the Senior Statistician, 12 senior and staff economists, and 5 junior staff economists.

The professional staff and their special fields at the end of the year were:

Susan J. Irving Special Assistant to the Chairman

Senior and Staff Economists

William T. Boehm	Agriculture and Food Policy
Stephen H. Brooks	Macroeconomic Analysis and Forecasting, and Fiscal Policy
Geoffrey O. Carliner	Labor Market Policies and Pension Issues
Jose A. Gomez-Ibanez	Regulation, Natural Resources, and Trans- portation
Val L. Koromzay	International Financial and Economic Devel- opments
Robert A. Leone	Industrial Policy Issues and Energy
Michael J. McKee	Macroeconomic Analysis and Forecasting, Productivity, Prices, Anti-Inflation Policies, and Energy
David C. Munro	Macroeconomic Analysis and Forecasting
Susan C. Nelson	Public Finance, Taxes, Social Security, Health and Welfare
Perry D. Quick	Finance, Money, Housing, and Economic De- velopment
Elinor Y. Sachse	International Financial Developments and Trade
Andrew J. Strenio	Regulation

Statistician

Catherine H. Furlong Senior Statistician

Junior Economists

Martin A. Asher Labor Market Policies

Elizabeth J. Jensen.....	Regulation
Stephen A. O'Connell	International Economic Developments and Trade
David H. Romer	Macroeconomic Analysis and Forecasting
Robert W. Turner	Public Finance

Catherine H. Furlong, Senior Statistician, continued to be in charge of the Council's Statistical Office. Mrs. Furlong has primary responsibility for managing the Council's statistical information system. She supervises the publication of *Economic Indicators* and the preparation of all statistical matter in the *Economic Report*. She also oversees the verification of statistics in memoranda, testimony, and speeches. Natalie V. Rentfro, Earnestine Reid, and Barbara L. Sibel assist Mrs. Furlong.

In preparing the *Economic Report* the Council relied upon the editorial assistance of John Phillip Sawicki. Also called on for special assistance in connection with the *Report* was Dorothy Bagovich.

SUPPORTING STAFF

The Administrative Office of the Council of Economic Advisers provides general support for the Council's activities. Nancy F. Skidmore, Administrative Officer, prepares and analyzes the Council's budget and provides general administrative services.

Elizabeth A. Kaminski, Staff Assistant to the Council, handles general personnel management, coordinates the schedule for the *Economic Report*, and provides general assistance to the Council and the Special Assistant in the management of the Council's activities.

Members of the secretarial staff for the Chairman and Council Members during 1980 were Patricia A. Lee, Linda A. Reilly, Lisa A. Stockdale, and Alice H. Williams. Secretaries for the professional staff were Catherine Fibich, Bessie M. Lafakis, Joyce A. Pilkerton, Margaret L. Snyder, and Lillie M. Sturniolo. Elizabeth A. Cralle provided secretarial assistance during the summer months and during the preparation of the *Report*. Joseph Henley served as a clerk during the preparation of the *Report*.

DEPARTURES

The Council's professional staff members are in most cases on leave from universities, other government agencies, or research institutions. Their tenure with the Council is usually limited to 1 or 2 years. Senior staff economists who resigned during the year were Paul N. Courant (University of Michigan), K. Burke Dillon (International Monetary Fund), David Harrison, Jr. (Harvard University), David S. McClain (Boston University), V. Vance Roley (Federal Reserve Bank of Kansas City), Daniel H. Saks (National Commission for Employment Policy), and Charles L. Trozzo (George Washington

University). Kate Stith Pressman, staff economist, resigned to accept a position with the Department of Justice.

Junior economists who resigned in 1980 were David W. Berson (University of Michigan), Lisa L. Blum (Department of Commerce), Stephen G. Cecchetti (University of California, Berkeley), Judith R. Gelman (Federal Trade Commission), and Matthew D. Shapiro (Massachusetts Institute of Technology).

Appendix B
STATISTICAL TABLES RELATING TO INCOME,
EMPLOYMENT, AND PRODUCTION

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General Notes

Detail in these tables may not add to totals because of rounding.
Unless otherwise noted, all dollar figures are in current dollars.

Symbols used:

^p Preliminary.

--Not available (also, not applicable).

Note.—Data for the national income and product accounts series appearing in this appendix reflect benchmark revisions by the Department of Commerce, Bureau of Economic Analysis. See *Survey of Current Business* for details.

NATIONAL INCOME OR EXPENDITURE

TABLE B-1.—*Gross national product, 1929-80*

(Billions of dollars, except as noted; quarterly data at seasonally adjusted annual rates)

Year or quarter	Gross national product	Personal consumption expenditures	Gross private domestic investment	Net exports of goods and services			Government purchases of goods and services				Percent change from preceding period, gross national product ¹	
				Net exports	Exports	Imports	Total	Federal				State and local
								Total	National defense	Non-defense		
1929.....	103.4	77.3	16.2	1.1	7.0	5.9	8.8	1.4			7.4	
1933.....	55.8	45.8	1.4	.4	2.4	2.0	8.2	2.1			6.1	-4.2
1939.....	90.9	67.0	9.3	1.2	4.6	3.4	13.5	5.2	1.2	3.9	8.3	7.0
1940.....	100.0	71.0	13.1	1.8	5.4	3.6	14.2	6.1	2.2	3.9	8.1	10.0
1941.....	125.0	80.8	17.9	1.5	6.1	4.7	24.9	16.9	13.7	3.2	8.0	25.0
1942.....	158.5	88.6	9.9	.2	5.0	4.8	59.8	52.0	49.4	2.6	7.8	26.7
1943.....	192.1	99.4	5.8	-1.9	4.6	6.5	88.9	81.3	79.7	1.6	7.5	21.3
1944.....	210.6	108.2	7.2	-1.7	5.5	7.2	97.0	89.4	87.4	2.0	7.6	9.6
1945.....	212.4	119.5	10.6	-.5	7.4	7.9	82.8	74.6	73.5	1.1	8.2	.9
1946.....	209.8	143.8	30.7	7.8	15.1	7.3	27.5	17.6	14.8	2.8	9.9	-1.2
1947.....	233.1	161.7	34.0	11.9	20.2	8.3	25.5	12.7	9.0	3.7	12.8	11.1
1948.....	259.5	174.7	45.9	6.9	17.5	10.5	32.0	16.7	10.7	6.0	15.3	11.3
1949.....	258.3	178.1	35.3	6.5	16.3	9.8	38.4	20.4	13.2	7.2	18.0	-5
1950.....	286.5	192.0	53.8	2.2	14.4	12.2	38.5	18.7	14.0	4.7	19.8	10.9
1951.....	330.8	207.1	59.2	4.4	19.7	15.3	60.1	38.3	33.5	4.8	21.8	15.5
1952.....	348.0	217.1	52.1	3.2	19.1	15.9	75.6	52.4	45.8	6.5	23.2	5.2
1953.....	366.8	229.7	53.3	1.3	18.0	16.7	82.5	57.5	48.6	8.9	25.0	5.4
1954.....	366.8	235.8	52.7	2.5	18.7	16.2	75.8	47.9	41.1	6.8	27.8	.0
1955.....	400.0	253.7	68.4	3.0	21.0	18.0	75.0	44.5	38.4	6.0	30.6	9.0
1956.....	421.7	266.0	71.0	5.3	25.0	19.8	79.4	45.9	40.2	5.7	33.5	5.4
1957.....	444.0	280.4	69.2	7.3	28.1	20.8	87.1	50.0	44.0	5.9	37.1	5.3
1958.....	449.7	289.5	61.9	3.3	24.2	21.0	95.0	53.9	45.6	8.3	41.1	1.3
1959.....	487.9	310.8	78.1	1.4	24.8	23.4	97.6	53.9	45.6	8.3	43.7	8.5
1960.....	506.5	324.9	75.9	5.5	28.9	23.4	100.3	53.7	44.5	9.3	46.5	3.8
1961.....	524.6	335.0	74.8	6.6	29.9	23.3	108.2	57.4	47.0	10.4	50.8	3.6
1962.....	565.0	355.2	85.4	6.4	31.8	25.4	118.0	63.7	51.1	12.7	54.3	7.7
1963.....	596.7	374.6	90.9	7.6	34.2	26.6	123.7	64.6	50.3	14.3	59.0	5.6
1964.....	637.7	400.5	97.4	10.1	38.8	28.8	129.8	65.2	49.0	16.2	64.6	6.9
1965.....	691.1	430.4	113.5	8.8	41.1	32.3	138.4	67.3	49.4	17.8	71.1	8.4
1966.....	756.0	465.1	125.7	6.5	44.6	38.1	158.7	78.8	60.3	18.5	79.8	9.4
1967.....	799.6	490.3	122.8	6.3	47.3	41.0	180.2	90.9	71.5	19.5	89.3	5.8
1968.....	873.4	536.9	133.3	4.3	52.4	48.1	199.0	98.0	76.9	21.2	101.0	9.2
1969.....	944.0	581.8	149.3	4.2	57.5	53.3	208.8	97.6	76.3	21.2	111.2	8.1
1970.....	992.7	621.7	144.2	6.7	65.7	59.0	220.1	95.7	73.6	22.2	124.4	5.2
1971.....	1,077.6	672.2	166.4	4.1	68.8	64.7	234.9	96.2	70.2	26.0	138.7	8.6
1972.....	1,185.9	737.1	195.0	.7	77.5	76.7	253.1	101.7	73.1	28.5	151.4	10.1
1973.....	1,326.4	812.0	229.8	14.2	109.6	95.4	270.4	102.0	72.8	29.1	168.5	11.8
1974.....	1,434.2	888.1	228.7	13.4	146.2	132.8	304.1	111.0	77.0	33.9	193.1	8.1
1975.....	1,549.2	976.4	206.1	26.8	154.9	128.1	339.9	122.7	83.0	39.7	217.2	8.0
1976.....	1,718.0	1,084.3	257.9	13.8	170.9	157.1	362.1	129.2	86.0	43.2	232.9	10.9
1977.....	1,918.0	1,205.5	322.3	-4.2	183.3	187.5	394.5	143.9	93.3	50.6	250.6	11.6
1978.....	2,156.1	1,348.7	375.3	-.6	219.8	220.4	432.6	153.4	100.0	53.4	279.2	12.4
1979.....	2,413.9	1,510.9	415.8	13.4	281.3	267.9	473.8	167.9	111.2	56.7	305.9	12.0
1980 ^a	2,627.4	1,670.1	395.1	27.5	341.2	313.6	534.8	198.9	132.0	66.9	335.9	8.8
1978:												
I.....	2,032.4	1,278.3	350.7	-12.3	195.9	208.2	415.7	149.5	96.5	53.1	266.2	9.1
II.....	2,129.6	1,330.1	377.7	-3.3	214.8	218.1	425.1	149.1	98.4	50.7	276.0	20.5
III.....	2,190.5	1,369.9	380.4	1.9	225.3	223.3	438.3	154.1	100.9	53.2	284.2	11.9
IV.....	2,271.9	1,416.6	392.6	11.4	243.5	232.0	451.3	160.7	104.0	56.7	290.6	15.7
1979:												
I.....	2,340.6	1,454.1	408.3	19.9	259.1	239.2	458.2	164.8	106.0	58.8	293.4	12.7
II.....	2,374.6	1,478.0	423.2	8.2	266.8	258.6	465.1	163.6	108.1	55.5	301.6	5.9
III.....	2,444.1	1,529.1	421.7	17.9	293.1	275.2	475.4	165.1	112.0	53.1	310.4	12.2
IV.....	2,496.3	1,582.3	410.0	7.6	306.3	298.7	496.4	178.1	118.7	59.4	318.3	8.8
1980:												
I.....	2,571.7	1,631.0	415.6	8.2	337.3	329.1	516.8	190.0	125.0	64.9	326.8	12.6
II.....	2,564.8	1,626.8	390.9	17.1	333.3	316.2	530.0	198.7	128.7	70.0	331.3	-1.1
III.....	2,637.3	1,682.2	377.1	44.5	342.4	297.9	533.5	194.9	131.4	63.5	338.6	11.8

¹ Changes are based on unrounded data and therefore may differ slightly from those obtained from data shown here.
Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-2.—Gross national product in 1972 dollars, 1929-80

(Billions of 1972 dollars, except as noted; quarterly data at seasonally adjusted annual rates)

Year or quarter	Gross national product	Personal consumption expenditures				Gross private domestic investment				
		Total	Durable goods	Non-durable goods	Services	Total	Fixed investment			
							Total	Nonresidential		
								Total	Structures	Producers' durable equipment
1929.....	315.7	215.1	20.9	98.1	96.1	55.8	51.2	37.5	21.1	16.4
1933.....	222.1	170.5	10.7	82.9	76.9	8.4	13.2	10.4	5.0	5.5
1939.....	319.8	219.8	18.6	115.1	86.1	33.6	32.0	20.9	8.7	12.1
1940.....	344.1	229.9	21.2	119.9	88.8	44.5	38.3	25.8	10.0	15.8
1941.....	400.4	243.6	24.2	127.6	91.8	55.8	43.8	30.4	12.0	18.5
1942.....	461.7	241.1	15.7	129.9	95.5	29.5	24.3	17.6	6.8	10.9
1943.....	531.6	248.2	14.0	134.0	100.2	18.1	18.0	14.0	4.2	9.8
1944.....	569.1	255.2	13.0	139.4	102.8	19.7	22.0	18.7	5.5	13.2
1945.....	560.4	270.9	14.4	150.3	106.3	27.7	31.4	27.6	8.3	19.2
1946.....	478.3	301.0	25.4	158.9	116.7	70.9	58.7	42.1	18.9	23.2
1947.....	470.3	305.8	30.1	154.8	120.9	70.0	70.2	48.9	17.4	31.5
1948.....	489.8	312.2	32.5	155.0	124.7	82.1	76.6	51.1	18.4	32.6
1949.....	492.2	319.3	35.5	157.4	126.5	65.4	69.8	46.0	17.9	28.1
1950.....	534.8	337.3	42.6	161.8	132.9	93.5	83.0	50.0	19.2	30.8
1951.....	579.4	341.6	39.1	165.3	137.2	93.9	80.2	52.9	20.7	32.2
1952.....	600.8	350.1	38.0	171.2	140.9	83.0	78.7	52.1	20.6	31.5
1953.....	623.6	363.4	42.1	175.7	145.6	85.3	83.8	56.3	22.6	33.7
1954.....	616.1	370.0	42.5	177.0	150.5	83.1	85.3	55.4	23.6	31.8
1955.....	657.5	394.1	51.1	185.4	157.6	103.8	96.1	61.3	25.4	35.9
1956.....	671.6	405.4	48.8	191.6	165.0	102.6	96.8	65.4	28.3	37.0
1957.....	683.8	413.8	48.6	194.9	170.3	97.0	95.5	66.2	28.4	37.8
1958.....	680.9	418.0	45.3	196.8	175.9	87.5	89.3	59.3	26.8	32.5
1959.....	721.7	440.4	50.7	205.0	184.8	108.0	100.9	63.6	27.4	36.2
1960.....	737.2	452.0	51.4	208.2	192.4	104.7	101.2	66.9	29.5	37.4
1961.....	756.6	461.4	49.3	211.9	200.2	103.9	100.9	66.7	30.2	36.5
1962.....	800.3	482.0	54.7	218.5	208.8	117.6	109.7	72.0	31.6	40.4
1963.....	832.5	500.5	59.7	223.0	217.8	125.1	117.5	75.1	31.9	43.1
1964.....	876.4	528.0	64.8	233.3	229.8	133.0	125.9	82.7	34.4	48.3
1965.....	929.3	557.5	72.6	244.0	240.9	151.9	140.1	97.4	40.6	56.8
1966.....	984.8	585.7	78.4	255.5	251.8	163.0	146.2	108.0	43.4	64.5
1967.....	1,011.4	602.7	79.5	259.5	263.7	154.9	142.7	105.6	42.0	63.6
1968.....	1,058.1	634.4	88.3	270.5	275.6	161.6	152.6	109.5	42.8	66.8
1969.....	1,087.6	657.9	91.8	277.3	288.8	171.4	160.4	116.8	45.0	71.8
1970.....	1,085.6	672.1	89.1	283.7	299.3	158.5	154.8	113.8	43.9	69.9
1971.....	1,122.4	696.8	98.2	288.7	309.9	173.9	165.8	112.2	42.8	69.3
1972.....	1,185.9	737.1	111.1	300.6	325.3	195.0	184.8	121.0	44.1	76.9
1973.....	1,255.0	768.5	121.3	308.0	339.2	217.5	200.4	138.1	47.4	90.7
1974.....	1,248.0	763.6	112.3	303.3	348.0	195.5	183.9	135.7	43.6	92.1
1975.....	1,233.9	780.2	112.7	308.2	359.3	154.8	161.5	119.3	38.3	81.1
1976.....	1,300.4	823.7	126.6	322.5	374.7	184.5	176.7	125.6	39.5	86.1
1977.....	1,371.7	863.9	138.4	334.0	391.5	213.5	201.2	140.6	40.5	100.0
1978.....	1,436.9	904.8	146.3	345.7	412.8	229.7	215.8	153.4	44.6	108.8
1979.....	1,483.0	930.9	146.6	354.6	429.6	232.6	222.5	163.3	48.5	114.8
1980.....	1,480.7	933.0	134.8	357.5	440.7	204.0	205.2	157.7	48.0	109.7
1978:										
I.....	1,402.3	884.1	139.5	339.8	404.8	224.9	207.2	145.7	42.1	103.6
II.....	1,432.8	900.6	148.1	342.4	410.1	232.9	216.9	153.5	44.7	108.9
III.....	1,446.7	911.2	147.0	347.2	417.1	229.3	217.8	155.0	45.3	109.7
IV.....	1,465.8	923.4	150.7	353.5	419.2	231.8	221.3	159.4	46.3	113.1
1979:										
I.....	1,479.9	925.5	149.6	351.1	424.8	237.7	222.3	161.4	45.8	115.6
II.....	1,473.4	922.8	144.2	350.6	428.0	238.7	220.4	161.3	48.0	113.2
III.....	1,488.2	933.4	146.7	355.4	431.3	232.6	225.0	166.4	49.4	117.0
IV.....	1,490.6	941.6	146.0	361.3	434.3	221.5	222.2	164.1	50.7	113.5
1980:										
I.....	1,501.9	943.4	145.4	361.5	436.5	218.3	219.2	165.0	50.5	114.5
II.....	1,463.3	919.3	126.2	356.6	436.5	200.5	199.2	156.1	48.7	107.4
III.....	1,471.9	930.8	132.6	354.9	443.3	195.3	200.2	155.5	46.8	108.8

See next page for continuation of table.

TABLE B-2.—Gross national product in 1972 dollars, 1929-80—Continued

(Billions of 1972 dollars, except as noted; quarterly data at seasonally adjusted annual rates)

Year or quarter	Gross private domestic investment—continued					Net exports of goods and services			Government purchases of goods and services			Percent change from preceding period, gross national product ¹
	Fixed investment—continued				Change in business inventories	Net exports	Exports	Imports	Total	Federal	State and local	
	Residential											
	Total	Nonfarm structures	Farm structures	Producers' durable equipment								
1929.....	13.7	13.0	0.6	0.1	4.6	3.7	16.7	12.9	41.0	7.0	33.9	
1933.....	2.8	2.5	.2	.1	-4.9	.4	9.1	8.6	42.9	10.9	32.0	-2.2
1939.....	11.1	10.4	.6	.1	1.6	3.4	14.3	10.9	63.0	22.8	40.3	7.8
1940.....	12.5	11.6	.8	.1	6.2	4.4	15.5	11.1	65.3	26.7	38.6	7.6
1941.....	13.3	12.3	.9	.2	12.0	3.2	16.4	13.2	97.8	61.0	36.8	16.3
1942.....	6.7	6.0	.6	.1	5.2	-.6	11.4	12.0	191.6	157.4	34.3	15.3
1943.....	4.0	3.5	.4	0	.1	-5.9	9.8	15.7	271.3	239.6	31.7	15.1
1944.....	3.4	3.0	.4	0	-2.3	-6.2	10.5	16.8	300.4	269.7	30.7	7.1
1945.....	3.8	3.4	.3	.1	-3.6	-3.7	13.8	17.5	265.4	233.7	31.7	-1.5
1946.....	16.6	15.3	1.1	.2	12.2	13.2	27.3	14.0	93.1	58.2	34.9	-14.7
1947.....	21.3	19.7	1.3	.3	-.2	18.9	32.2	13.3	75.7	36.3	39.4	-1.7
1948.....	25.6	23.8	1.5	.3	5.5	10.8	26.3	15.5	84.7	42.8	41.9	4.1
1949.....	23.8	22.1	1.4	.3	-4.4	10.7	25.8	15.2	96.8	49.2	47.5	.5
1950.....	33.0	31.3	1.3	.3	10.6	5.9	23.6	17.7	98.1	47.3	50.8	8.7
1951.....	27.3	25.7	1.3	.3	13.7	10.1	28.6	18.5	133.7	82.2	51.5	8.3
1952.....	26.6	25.1	1.2	.3	4.3	7.9	27.9	20.0	159.8	107.2	52.7	3.7
1953.....	27.5	26.1	1.2	.3	1.5	4.8	26.6	21.8	170.1	114.7	55.3	3.8
1954.....	29.9	28.5	1.1	.3	-2.2	6.9	27.8	28.9	156.0	96.1	59.9	-1.2
1955.....	34.8	33.5	.9	.4	7.7	7.3	30.7	23.4	152.3	88.2	64.1	6.7
1956.....	31.5	30.0	1.0	.4	5.8	10.1	35.3	25.2	153.5	86.8	66.7	2.1
1957.....	29.2	27.8	1.0	.4	1.5	11.8	38.0	26.1	161.2	90.6	70.6	1.8
1958.....	30.0	28.6	.9	.5	-1.8	5.6	33.2	27.6	169.9	93.4	76.5	-.4
1959.....	37.4	35.9	1.0	.6	7.0	2.7	33.8	31.1	170.6	91.4	79.2	6.0
1960.....	34.2	32.9	.8	.5	3.5	7.7	38.4	30.7	172.8	90.4	82.4	2.2
1961.....	34.3	32.8	1.0	.5	3.0	8.5	39.3	30.9	182.9	95.3	87.5	2.6
1962.....	37.7	36.3	.9	.6	7.8	7.5	41.8	34.3	193.2	102.8	90.4	5.8
1963.....	42.5	40.9	.9	.6	7.5	9.4	44.8	35.4	197.6	101.8	95.8	4.0
1964.....	43.1	41.5	.9	.7	7.1	12.8	50.3	37.5	202.6	100.2	102.4	5.3
1965.....	42.7	41.2	.8	.7	11.8	10.1	51.7	41.6	209.8	100.3	109.5	6.0
1966.....	38.2	36.6	.9	.8	16.8	6.5	54.4	47.9	229.7	112.6	117.1	6.0
1967.....	37.1	35.4	.9	.8	12.2	5.4	56.7	51.3	248.5	125.1	123.4	2.7
1968.....	43.1	41.3	.8	.9	9.0	1.9	61.2	59.3	260.2	128.1	132.1	4.6
1969.....	43.6	41.7	.9	1.1	11.1	.9	65.0	64.1	257.4	121.8	135.6	2.8
1970.....	41.0	39.2	.6	1.1	3.8	3.9	70.5	66.6	251.1	110.6	140.5	-.2
1971.....	53.7	51.6	.7	1.3	8.1	1.6	71.0	69.3	250.1	103.7	146.4	3.4
1972.....	63.8	61.5	.7	1.5	10.2	.7	77.5	76.7	253.1	101.7	151.4	5.7
1973.....	62.3	59.9	.6	1.7	17.2	15.5	97.3	81.8	253.5	95.9	157.6	5.8
1974.....	48.2	45.3	1.1	1.7	11.6	27.8	108.5	80.7	261.2	96.6	164.5	-.6
1975.....	42.2	39.8	.8	1.6	-6.7	32.2	103.6	71.4	266.7	97.4	169.3	-1.1
1976.....	51.2	48.7	.8	1.7	7.8	25.4	110.1	84.7	266.8	96.8	170.0	5.4
1977.....	60.6	57.8	1.0	1.8	12.3	21.9	113.2	91.3	272.3	100.7	171.6	5.5
1978.....	62.4	59.5	1.0	1.9	14.0	24.6	127.5	103.0	277.8	99.8	178.0	4.8
1979.....	59.1	56.2	.9	2.0	10.2	37.7	146.9	109.2	281.8	101.7	180.1	3.2
1980 ^a	47.5	44.6	.9	2.0	-1.2	53.8	161.9	108.2	289.9	108.3	181.7	-.2
1978: I.....	61.5	58.5	1.1	1.9	17.7	18.7	118.3	99.5	274.6	99.4	175.3	3.2
II.....	63.3	60.6	.8	1.9	16.0	23.0	125.4	102.4	276.3	98.0	178.3	9.0
III.....	62.8	59.8	1.1	1.9	11.5	26.1	129.8	103.7	280.0	100.8	179.2	3.9
IV.....	61.9	58.8	1.0	2.0	10.6	30.5	136.6	106.2	280.1	101.0	179.2	5.4
1979: I.....	60.8	58.1	.8	2.0	15.4	36.0	141.1	105.1	280.6	102.9	177.7	3.9
II.....	59.1	56.3	.8	2.0	18.4	31.6	140.5	108.8	280.3	100.8	179.4	-1.7
III.....	58.6	55.5	.9	2.1	7.6	41.1	151.3	110.2	281.1	99.9	181.2	4.1
IV.....	58.1	54.9	1.1	2.1	-.7	42.2	154.8	112.6	285.3	103.1	182.2	.6
1980: I.....	54.2	51.2	1.0	2.1	-.9	50.1	165.9	115.8	290.1	107.6	182.5	3.1
II.....	43.1	40.3	.8	2.0	1.3	51.7	160.5	108.9	291.9	110.7	181.2	-9.9
III.....	44.7	41.9	.7	2.0	-5.0	57.6	160.5	102.8	288.2	106.9	181.3	2.4

¹ Changes are based on unrounded data and therefore may differ slightly from those obtained from data shown here.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-3.—Implicit price deflators for gross national product, 1929-80

(Index numbers, 1972=100, except as noted; quarterly data seasonally adjusted)

Year or quarter	Gross national product ¹	Personal consumption expenditures				Gross private domestic investment ¹			
		Total	Durable goods	Nondurable goods	Services	Total	Fixed investment		
							Total	Nonresidential	Producers' durable equipment
								Structures	
1929.....	32.76	35.9	44.2	38.4	31.6	28.3	28.3	24.3	33.4
1933.....	25.13	26.9	32.5	26.8	26.1	22.4	22.9	19.2	26.2
1939.....	28.43	30.5	35.9	30.5	29.2	27.7	28.2	23.0	32.0
1940.....	29.06	30.9	36.7	30.9	29.5	28.5	29.1	23.4	32.8
1941.....	31.23	33.2	40.0	33.6	30.8	30.7	31.0	24.9	34.9
1942.....	34.32	36.7	43.7	39.1	32.4	33.5	33.9	28.4	37.3
1943.....	36.14	40.1	46.7	43.7	34.2	35.7	35.9	32.4	37.3
1944.....	37.01	42.4	51.3	46.2	36.1	37.0	36.8	33.8	38.0
1945.....	37.91	44.1	55.5	47.8	37.3	37.2	36.7	33.9	37.9
1946.....	43.88	47.8	62.1	52.1	38.8	41.3	40.0	36.6	42.8
1947.....	49.55	52.9	67.8	58.7	41.7	49.0	46.9	44.0	48.6
1948.....	52.98	56.0	70.3	62.3	44.4	53.7	51.5	48.8	53.0
1949.....	52.49	55.8	70.5	60.3	46.0	54.9	53.0	48.4	56.0
1950.....	53.56	56.9	72.2	60.7	47.4	56.7	54.5	49.3	57.8
1951.....	57.09	60.6	76.3	65.8	49.9	60.9	59.1	55.1	61.7
1952.....	57.92	62.0	76.7	66.5	52.6	62.3	60.1	56.3	62.6
1953.....	58.82	63.2	77.2	66.3	55.4	63.1	61.2	57.4	63.8
1954.....	59.55	63.7	75.0	66.6	57.2	63.6	61.7	56.5	65.5
1955.....	60.84	64.4	75.6	66.3	58.4	65.0	62.9	57.6	66.6
1956.....	62.79	65.6	77.7	67.3	60.1	68.5	67.3	62.4	71.1
1957.....	64.93	67.8	80.9	69.4	62.2	71.1	71.0	64.9	75.5
1958.....	66.04	69.2	81.3	71.0	64.1	71.0	70.9	63.9	76.6
1959.....	67.60	70.6	83.8	71.4	66.0	71.8	72.2	64.2	78.3
1960.....	68.70	71.9	83.8	72.6	67.9	72.1	72.5	63.7	79.4
1961.....	69.33	72.6	84.3	73.3	69.0	71.8	72.0	63.3	79.3
1962.....	70.61	73.7	85.4	73.9	70.4	72.2	72.5	63.6	79.4
1963.....	71.67	74.8	86.2	74.9	71.7	72.3	73.1	64.1	79.7
1964.....	72.77	75.9	87.1	75.8	72.7	72.9	73.8	64.9	80.1
1965.....	74.36	77.2	86.8	77.3	74.2	74.0	74.7	66.4	80.6
1966.....	76.76	79.4	86.7	80.1	76.4	76.3	76.9	69.2	82.1
1967.....	79.06	81.4	88.2	81.9	78.7	78.8	79.5	72.2	84.3
1968.....	82.54	84.6	91.1	85.3	81.9	82.2	82.8	75.8	87.2
1969.....	86.79	88.4	93.3	89.4	86.0	87.0	86.7	81.5	89.9
1970.....	91.45	92.5	95.7	93.6	90.5	91.1	91.3	88.2	93.2
1971.....	96.01	96.5	99.0	96.6	95.6	95.7	96.2	94.5	97.2
1972.....	100.00	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1973.....	105.69	105.7	101.7	108.3	104.7	105.5	103.8	107.7	101.8
1974.....	114.92	116.3	108.2	123.1	113.0	116.7	115.4	128.2	109.3
1975.....	125.56	125.2	117.3	132.1	121.6	131.9	132.2	144.8	126.2
1976.....	132.11	131.6	123.9	137.0	129.6	139.2	138.6	149.0	133.9
1977.....	139.83	139.5	129.2	143.4	139.9	149.7	146.2	159.4	140.9
1978.....	150.05	149.1	136.2	153.2	150.1	163.7	157.7	176.4	150.1
1979.....	162.77	162.3	144.8	169.8	162.1	179.1	171.3	198.6	159.7
1980 ²	177.45	179.0	156.0	188.6	178.2	194.5	187.1	225.2	170.4
1978:									
I.....	144.93	144.6	132.6	148.3	145.6	157.2	152.8	166.8	147.1
II.....	148.63	147.7	135.1	152.0	148.6	161.7	155.9	173.2	148.9
III.....	151.42	150.3	137.4	154.5	151.4	165.9	159.4	179.5	151.2
IV.....	154.99	153.4	139.4	157.9	154.6	169.4	162.3	185.1	153.0
1979:									
I.....	158.16	157.1	142.0	162.9	157.7	172.8	165.5	190.6	155.6
II.....	161.17	160.2	143.9	167.3	159.9	177.0	169.2	194.0	158.7
III.....	164.23	163.8	145.4	172.1	163.3	181.5	173.4	201.4	161.5
IV.....	167.47	168.0	148.0	176.9	167.4	184.9	176.8	207.4	163.2
1980:									
I.....	171.23	172.9	151.9	182.9	171.6	188.5	180.5	214.3	165.6
II.....	175.28	177.0	154.1	186.2	176.0	192.5	185.7	222.4	169.0
III.....	179.18	180.7	157.5	190.0	180.3	196.4	189.1	229.5	171.7

See next page for continuation of table.

TABLE B-3.—Implicit price deflators for gross national product, 1929-80—Continued

[Index numbers, 1972=100, except as noted; quarterly data seasonally adjusted]

Year or quarter	Gross private domestic investment ¹ —continued				Exports and imports of goods and services ¹		Government purchases of goods and services			Gross domestic product	Percent change from preceding period ²	
	Fixed investment—continued											
	Residential				Exports	Imports	Total	Federal	State and local			
	Total	Non-farm structures	Farm structures	Producers' durable equipment								
1929.....	28.2	27.8	28.6	77.2						42.2	45.5	21.5	20.5	21.8	32.8
1933.....	20.7	19.8	19.5	58.8	26.5	23.6	19.2	19.4	19.1	25.1	-2.1	-2.1
1939.....	26.6	26.3	23.4	61.1	32.1	31.0	21.4	22.7	20.7	28.4	-8	-8
1940.....	27.4	27.2	23.6	59.6	34.9	32.8	21.7	22.7	20.9	29.1	2.2	2.2
1941.....	30.0	29.7	26.6	63.8	37.3	35.4	25.5	27.8	21.7	31.2	7.5	7.5
1942.....	32.4	31.8	30.7	71.3	43.6	40.0	31.2	33.0	22.8	34.3	9.9	9.9
1943.....	34.9	34.3	35.7	71.4	46.8	41.3	32.8	34.0	23.7	36.1	5.3	5.3
1944.....	38.1	37.3	40.8	75.0	51.9	42.7	32.3	33.1	24.8	37.0	2.4	2.4
1945.....	40.8	40.0	42.9	84.6	53.6	44.9	31.2	31.9	25.8	37.9	2.4	2.4
1946.....	44.6	43.9	46.6	95.2	55.4	51.8	29.6	30.2	28.5	43.9	15.7	15.7
1947.....	53.7	53.0	52.8	105.6	62.8	62.3	33.6	35.0	32.4	49.5	12.9	12.9
1948.....	58.1	57.5	57.3	111.5	66.5	67.8	37.7	39.0	36.4	53.0	6.9	6.9
1949.....	58.7	58.1	58.0	107.9	63.1	64.6	39.7	41.4	37.8	52.5	-9	-9
1950.....	60.0	59.5	59.4	107.4	61.0	68.8	39.2	39.6	38.9	53.6	2.1	2.1
1951.....	64.4	63.8	63.7	114.9	68.8	82.6	45.0	46.6	42.3	57.1	6.6	6.6
1952.....	66.4	65.8	65.7	114.6	68.6	79.9	47.3	48.9	44.1	57.9	1.4	1.4
1953.....	66.9	66.3	66.2	114.2	67.5	76.7	48.5	50.1	45.2	58.8	1.6	1.6
1954.....	67.1	66.6	66.5	112.4	67.2	77.2	48.6	49.9	46.5	59.5	1.2	1.2
1955.....	68.7	68.2	68.3	109.1	68.5	77.1	49.2	50.4	47.6	60.8	2.2	2.2
1956.....	71.0	70.5	70.6	104.3	71.0	78.4	51.7	52.9	50.2	62.8	3.2	3.2
1957.....	71.4	70.9	70.9	103.4	74.0	79.6	54.0	55.1	52.6	64.9	3.4	3.4
1958.....	71.2	70.7	70.8	101.9	73.1	76.1	55.9	57.7	53.8	66.0	1.7	1.7
1959.....	71.1	70.6	70.7	101.8	73.5	75.2	57.2	59.0	55.1	67.6	2.4	2.4
1960.....	71.4	70.9	71.1	100.8	75.2	76.1	58.0	59.4	56.5	68.7	1.6	1.6
1961.....	71.3	70.9	70.7	99.0	76.1	75.5	59.1	60.2	58.0	69.3	.9	.9
1962.....	71.5	71.1	71.2	96.8	76.0	74.2	61.1	62.0	60.1	70.6	1.8	1.8
1963.....	70.9	70.5	70.6	95.3	76.3	75.2	62.6	63.5	61.6	71.7	1.5	1.5
1964.....	71.2	70.8	70.9	94.3	77.2	76.8	64.1	65.1	63.1	72.8	1.5	1.5
1965.....	72.3	72.0	72.2	92.1	79.4	77.7	66.0	67.1	64.9	74.4	2.2	2.2
1966.....	74.6	74.3	74.2	90.8	81.9	79.4	69.1	70.0	68.2	76.8	3.2	3.2
1967.....	77.0	76.7	76.7	91.0	83.5	79.9	72.5	72.7	72.4	79.1	3.0	3.0
1968.....	80.7	80.5	80.6	93.5	85.5	81.1	76.5	76.5	76.4	82.5	4.4	4.4
1969.....	87.7	87.5	87.5	95.7	88.5	83.2	81.1	80.1	82.0	86.8	5.1	5.2
1970.....	90.5	90.3	90.6	97.8	93.2	88.6	87.7	86.6	88.6	91.4	5.4	5.4
1971.....	94.8	94.7	95.0	99.3	97.0	93.3	93.9	92.7	94.7	96.0	5.0	5.0
1972.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	4.2	4.2
1973.....	109.1	109.4	109.2	100.6	112.7	116.7	106.7	106.3	106.9	105.7	5.7	5.7
1974.....	120.3	120.8	120.5	106.8	134.7	164.6	116.4	114.9	117.4	114.9	8.7	8.7
1975.....	131.0	131.6	131.9	116.9	149.6	179.5	127.5	126.0	128.3	125.6	9.3	9.3
1976.....	140.7	141.3	140.7	122.7	155.2	185.5	135.7	133.5	137.0	132.1	5.2	5.2
1977.....	158.0	159.0	157.2	126.6	161.9	205.4	144.8	142.9	146.0	139.8	5.8	5.8
1978.....	178.3	179.8	179.0	132.7	172.4	214.0	155.7	153.7	156.9	150.1	7.3	7.3
1979.....	200.5	202.7	202.0	140.3	191.5	245.4	168.1	165.1	169.8	162.8	8.5	8.5
1980 ^a	219.1	222.2	220.0	149.5	210.7	289.9	184.4	183.7	184.9	177.5	9.0	9.0
1978:												
I.....	167.8	169.0	168.7	129.5	165.6	209.1	151.4	150.5	151.9	144.9	5.8	5.8
II.....	175.7	177.1	176.0	131.6	171.3	212.9	153.8	152.1	154.8	148.6	10.6	10.6
III.....	181.8	183.3	182.5	133.7	173.5	215.3	156.5	152.9	158.6	151.4	7.7	7.7
IV.....	187.9	189.6	188.3	135.9	178.2	218.5	161.1	159.2	162.2	155.0	9.8	9.8
1979:												
I.....	191.9	193.7	192.1	138.4	183.7	227.7	163.3	160.1	165.1	158.2	8.4	8.4
II.....	198.4	200.4	199.7	139.7	189.9	237.6	166.0	162.2	168.1	161.2	7.8	7.8
III.....	204.6	207.0	205.5	140.5	193.7	249.8	169.2	165.2	171.3	164.3	7.8	7.8
IV.....	207.7	210.1	207.7	142.4	197.9	265.2	174.0	172.8	174.7	167.5	8.1	8.1
1980:												
I.....	212.6	215.2	213.6	145.5	203.4	284.2	178.1	176.5	179.1	171.3	9.3	9.3
II.....	217.4	220.7	219.4	148.5	207.6	290.4	181.6	179.5	182.8	175.3	9.8	9.8
III.....	221.9	225.2	223.1	151.0	213.4	289.7	185.1	182.4	186.7	179.2	9.2	9.2

¹ Separate deflators are not available for gross private domestic investment, change in business inventories, and net exports of goods and services.² Changes are based on unrounded data and therefore may differ slightly from those obtained from data shown here. Quarterly data are at annual rates.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-4.—Fixed-weighted price indexes for gross national product 1972 weights, 1959-80

[Index numbers, 1972=100; quarterly data seasonally adjusted]

Years or quarter	Gross national product	Personal consumption expenditures	Gross private domestic investment ¹			Exports and imports of goods and services ¹		Government			Gross domestic product
			Fixed investment			Ex-ports	Im-ports	Total	Federational	State and local	
			Total	Nonresidential	Residential						
1959.....	69.1	72.1	74.3	73.9	74.9	73.8	75.0	56.8	56.8	58.5	69.1
1960.....	70.2	73.3	74.5	74.4	74.9	75.4	76.1	58.2	59.6	57.2	70.3
1961.....	71.0	74.0	74.4	74.3	74.7	76.4	75.4	59.4	60.5	58.7	71.1
1962.....	72.0	74.8	74.2	74.3	73.9	76.3	73.8	61.2	61.7	60.8	72.0
1963.....	72.8	75.7	74.0	74.7	72.6	76.6	74.7	62.7	63.3	62.3	72.8
1964.....	73.7	76.6	74.3	75.2	72.6	77.4	76.4	64.3	65.3	63.7	73.7
1965.....	75.0	77.7	75.2	76.1	73.5	79.7	77.1	66.1	67.2	65.4	75.0
1966.....	77.2	79.7	77.0	77.9	75.3	82.1	78.8	69.1	69.7	68.6	77.2
1967.....	79.5	81.6	79.3	80.3	77.5	83.4	79.3	72.3	71.6	72.9	79.5
1968.....	83.0	84.8	82.5	83.3	81.0	85.4	80.7	76.4	75.7	76.9	83.0
1969.....	87.2	88.5	87.3	87.0	87.8	88.4	83.0	81.3	79.8	82.3	87.2
1970.....	91.7	92.6	91.2	91.6	90.6	93.1	88.4	87.9	86.7	88.7	91.7
1971.....	96.1	96.5	95.8	96.3	94.9	96.9	93.3	94.0	93.0	94.8	96.1
1972.....	100.0	100.0	100.0	100.0	100.0	100.1	100.0	100.0	100.0	100.0	100.0
1973.....	105.8	105.8	105.8	104.0	109.2	112.6	116.6	106.8	106.6	106.9	105.8
1974.....	115.6	116.8	117.9	116.5	120.5	137.4	161.2	117.2	116.6	117.7	115.6
1975.....	126.0	125.8	132.3	132.9	131.2	151.7	174.5	128.2	127.4	128.8	126.0
1976.....	133.1	132.4	140.2	139.9	140.8	156.9	178.6	136.2	134.8	137.2	133.2
1977.....	141.6	140.6	151.8	148.5	158.0	164.1	194.6	145.5	144.6	146.1	141.6
1978.....	152.3	150.6	167.1	161.1	178.3	174.8	209.6	156.4	154.2	157.8	152.3
1979.....	166.3	164.8	185.0	176.7	200.9	196.8	243.3	170.4	168.0	172.0	166.4
1980 *.....	182.0	182.8	204.0	195.6	220.0	216.8	300.0	188.2	188.9	187.8	182.1
1978:											
I.....	147.1	145.8	159.7	155.4	167.9	168.5	203.5	151.7	150.7	152.4	147.1
II.....	150.6	149.3	164.8	159.1	175.7	172.9	208.1	154.1	152.1	155.4	150.6
III.....	153.7	152.0	169.5	163.0	181.7	175.6	211.3	157.5	154.5	159.5	153.8
IV.....	157.6	155.3	173.9	166.5	188.0	181.4	215.3	162.1	159.8	163.6	157.6
1979:											
I.....	161.1	159.1	177.8	170.3	192.1	188.1	224.7	165.1	162.0	167.1	161.1
II.....	164.4	162.5	182.8	174.4	198.6	195.5	234.8	167.7	164.1	170.2	164.5
III.....	167.9	166.6	187.9	178.8	205.1	199.5	249.5	171.7	169.0	173.5	168.0
IV.....	171.9	171.1	191.7	183.0	208.1	203.4	265.3	177.5	178.1	177.0	171.9
1980:											
I.....	175.9	176.4	196.7	188.0	213.2	210.0	287.9	182.1	182.8	181.7	176.0
II.....	179.8	180.5	202.4	193.9	218.4	213.1	296.9	185.9	186.0	185.8	179.9
III.....	183.8	184.7	207.1	198.6	223.1	218.9	305.8	189.7	189.4	189.9	183.9

¹ Separate deflators are not available for gross private domestic investment, change in business inventories, and net exports of goods and services.

Note.—Data are preliminary and subject to further revision.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-5.—Implicit price deflators and alternative price measures for gross national product and gross domestic product, 1929-80

(Quarterly data seasonally adjusted)

Year or quarter	Index numbers, 1972 = 100				Percent change from preceding period ¹					
	Gross national product		Gross domestic product		Gross national product			Gross domestic product		
	Implicit price deflator	Fixed-weighted price index (1972 weights)	Implicit price deflator	Fixed-weighted price index (1972 weights)	Implicit price deflator	Fixed-weighted price index (1972 weights)	Chain price index	Implicit price deflator	Fixed-weighted price index (1972 weights)	Chain price index
1929	32.76		32.8							
1933	25.13		25.1		-2.1			-2.1		
1939	28.43		28.4		-8			-8		
1940	29.06		29.1		2.2			2.2		
1941	31.23		31.2		7.5			7.5		
1942	34.32		34.3		9.9			9.9		
1943	36.14		36.1		5.3			5.3		
1944	37.01		37.0		2.4			2.4		
1945	37.91		37.9		2.4			2.4		
1946	43.88		43.9		15.7			15.7		
1947	49.55		49.5		12.9			12.9		
1948	52.98		53.0		6.9			6.9		
1949	52.49		52.5		-9			-9		
1950	53.56		53.6		2.1			2.1		
1951	57.09		57.1		6.6			6.6		
1952	57.92		57.9		1.4			1.4		
1953	58.82		58.8		1.6			1.6		
1954	59.55		59.5		1.2			1.2		
1955	60.84		60.8		2.2			2.2		
1956	62.79		62.8		3.2			3.2		
1957	64.93		64.9		3.4			3.4		
1958	66.04		66.0		1.7			1.7		
1959	67.60	69.1	67.6	69.1	2.4			2.4		
1960	68.70	70.2	68.7	70.3	1.6	1.6	1.6	1.6	1.6	1.6
1961	69.33	71.0	69.3	71.1	.9	1.1	1.0	.9	1.1	1.0
1962	70.61	72.0	70.6	72.0	1.8	1.3	1.3	1.8	1.3	1.3
1963	71.67	72.8	71.7	72.8	1.5	1.2	1.3	1.5	1.2	1.3
1964	72.77	73.7	72.8	73.7	1.5	1.2	1.5	1.5	1.2	1.4
1965	74.36	75.0	74.4	75.0	2.2	1.8	1.8	2.2	1.8	1.8
1966	76.76	77.2	76.8	77.2	3.2	3.0	3.1	3.2	3.0	3.1
1967	79.06	79.5	79.1	79.5	3.0	3.0	2.8	3.0	3.0	2.8
1968	82.54	83.0	82.5	83.0	4.4	4.2	4.3	4.4	4.2	4.3
1969	86.79	87.2	86.8	87.2	5.1	5.1	5.1	5.2	5.1	5.1
1970	91.45	91.7	91.4	91.7	5.4	5.2	5.4	5.4	5.2	5.4
1971	96.01	96.1	96.0	96.1	5.0	4.8	4.9	5.0	4.8	4.9
1972	100.00	100.0	100.0	100.0	4.2	4.0	4.1	4.2	4.0	4.1
1973	105.69	105.8	105.7	105.8	5.7	5.8	5.8	5.7	5.8	5.8
1974	114.92	115.6	114.9	115.6	8.7	9.3	9.0	8.7	9.3	9.0
1975	125.56	126.0	125.6	126.0	9.3	9.0	9.1	9.3	9.0	9.1
1976	132.11	133.1	132.1	133.2	5.2	5.7	5.7	5.2	5.7	5.7
1977	139.83	141.6	139.8	141.6	5.8	6.3	6.1	5.8	6.3	6.2
1978	150.05	152.3	150.1	152.3	7.3	7.6	7.5	7.3	7.6	7.5
1979	162.77	166.3	162.8	166.4	8.5	9.2	8.6	8.5	9.2	8.7
1980 ²	177.45	182.0	177.5	182.1	9.0	9.5	8.6	9.0	9.5	8.6
1978:										
I	144.93	147.1	144.9	147.1	5.8	5.9	6.1	5.8	5.9	6.2
II	148.63	150.6	148.6	150.6	10.6	9.8	9.6	10.6	9.8	9.6
III	151.42	153.7	151.4	153.8	7.7	8.7	8.4	7.7	8.7	8.4
IV	154.99	157.6	155.0	157.6	9.8	10.4	10.0	9.8	10.4	10.0
1979:										
I	158.16	161.1	158.2	161.1	8.4	9.1	8.8	8.4	9.2	8.8
II	161.17	164.4	161.2	164.5	7.8	8.5	8.0	7.8	8.5	8.0
III	164.23	167.9	164.3	168.0	7.8	8.9	7.4	7.8	8.9	7.4
IV	167.47	171.9	167.5	171.9	8.1	9.7	8.5	8.1	9.7	8.5
1980:										
I	171.23	175.9	171.3	176.0	9.3	9.8	8.3	9.3	9.8	8.2
II	175.28	179.8	175.3	179.9	9.8	9.1	8.5	9.8	9.1	8.5
III	179.18	183.8	179.2	183.9	9.2	9.2	9.4	9.2	9.2	9.4

¹ Changes are based on unrounded data and therefore may differ slightly from those obtained from published indexes shown here. Quarterly percent change data are at annual rates.

Note.—Data for fixed-weighted and chain price indexes are preliminary and subject to revision in late January 1981.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-6.—Gross national product by major type of product, 1929-80

(Billions of dollars; quarterly data at seasonally adjusted annual rates)

Year or quarter	Gross national product	Final sales	Inventory change	Goods								Services	Structures	Auto output
				Total			Durable goods		Nondurable goods					
				Total	Final sales	Inventory change	Final sales	Inventory change	Final sales	Inventory change				
1929	103.4	101.7	1.7	56.1	54.4	1.7	16.1	1.4	38.3	0.3	35.9	11.4		
1933	55.8	57.4	-1.6	27.0	28.6	-1.6	5.4	-5	23.2	-1.1	25.9	2.9		
1939	90.9	90.5	.4	49.0	48.6	.4	12.4	.3	36.2	.1	34.4	7.5		
1940	100.0	97.8	2.2	56.0	53.8	2.2	15.4	1.2	38.4	1.0	35.7	8.3		
1941	125.0	120.6	4.5	72.5	68.0	4.5	23.8	3.1	44.2	1.4	40.8	11.8		
1942	158.5	156.7	1.8	93.7	91.9	1.8	34.5	1.0	57.4	.7	50.8	14.0		
1943	192.1	192.8	-.6	120.4	121.0	-.6	54.2	.0	66.8	-.6	63.0	8.7		
1944	210.6	211.6	-1.0	132.3	133.3	-1.0	58.5	-.6	74.8	-.3	72.3	6.1		
1945	212.4	213.5	-1.0	128.9	129.9	-1.0	50.1	-1.3	79.8	.2	77.0	6.5		
1946	209.8	203.5	6.4	125.3	118.9	6.4	31.8	5.3	87.1	1.1	68.8	15.7		
1947	233.1	233.5	-.5	139.8	140.3	-.5	44.4	1.4	95.9	-1.9	71.6	21.7		
1948	259.5	254.8	4.7	154.4	149.7	4.7	48.0	1.0	101.7	3.7	77.2	28.0		
1949	258.3	261.4	-3.1	147.7	150.8	-3.1	50.0	-1.8	100.9	-1.3	82.2	28.4		
1950	286.5	279.7	6.8	162.4	155.6	6.8	56.2	3.6	99.4	3.2	88.5	35.6		
1951	330.8	320.5	10.3	189.5	179.2	10.3	66.4	6.1	112.8	4.2	103.5	37.8		
1952	348.0	344.8	3.1	194.6	191.5	3.1	72.5	1.2	119.0	2.0	113.9	39.4		
1953	366.8	366.3	.4	203.1	202.7	.4	77.8	1.5	124.9	-1.1	121.6	42.0		
1954	366.8	368.4	-1.5	196.1	197.6	-1.5	73.9	-2.5	123.7	1.0	126.2	44.5		
1955	400.0	394.1	6.0	214.5	208.5	6.0	81.4	3.4	127.1	2.6	131.4	49.5		
1956	421.7	417.0	4.7	223.3	218.6	4.7	85.9	2.1	132.7	2.6	146.2	52.2		
1957	444.0	442.6	1.3	232.3	231.0	1.3	91.3	.5	139.6	.8	158.7	53.0		
1958	449.7	451.2	-1.5	228.2	229.7	-1.5	84.4	-2.8	145.3	1.3	167.7	53.8		
1959	487.9	482.2	5.7	248.5	242.9	5.7	90.8	3.1	152.1	2.5	179.8	59.5		
1960	506.5	503.6	3.0	254.2	251.3	3.0	93.3	1.6	158.0	1.3	193.8	58.5		
1961	524.6	522.2	2.3	257.4	255.0	2.3	92.7	-.1	162.4	2.4	207.0	60.2		
1962	565.0	558.8	6.3	278.5	272.2	6.3	102.9	3.4	169.3	2.8	222.0	64.5		
1963	596.7	590.7	6.0	290.3	284.3	6.0	109.4	2.7	174.9	3.3	237.1	69.3		
1964	637.7	632.1	5.6	309.8	304.2	5.6	118.9	4.0	185.3	1.6	255.0	72.9		
1965	691.1	681.2	9.9	338.4	328.5	9.9	131.6	6.7	196.9	3.2	273.3	79.3		
1966	756.0	741.9	14.1	375.0	360.9	14.1	147.0	10.2	213.9	3.9	299.0	82.0		
1967	799.6	789.3	10.3	389.4	379.1	10.3	153.5	5.5	225.6	4.9	326.5	83.6		
1968	873.4	865.5	7.9	421.3	413.4	7.9	167.9	4.7	245.5	3.1	358.2	94.0		
1969	944.0	934.2	9.8	450.2	440.4	9.8	178.5	6.4	261.9	3.4	391.9	101.8		
1970	992.7	989.5	3.2	459.9	456.6	3.2	179.2	-.1	277.5	3.3	429.9	102.9		
1971	1,077.6	1,070.0	7.7	485.3	477.7	7.7	187.1	2.8	290.6	4.8	472.0	120.3		
1972	1,185.9	1,175.7	10.2	529.6	519.4	10.2	207.4	7.2	312.0	3.0	519.0	137.3		
1973	1,326.4	1,307.9	18.5	604.1	585.6	18.5	237.6	13.1	348.0	5.3	571.5	150.8		
1974	1,434.2	1,420.1	14.1	646.7	632.5	14.1	250.7	12.0	381.2	2.2	636.1	151.4		
1975	1,549.2	1,556.1	-.6	694.0	700.9	-.6	279.4	-8.4	421.5	1.5	705.2	150.0		
1976	1,718.0	1,706.2	11.8	771.1	759.3	11.8	312.5	7.7	446.7	4.2	779.3	167.6		
1977	1,918.0	1,897.0	21.0	852.6	831.6	21.0	353.9	8.8	477.7	12.2	869.0	196.4		
1978	2,156.1	2,133.9	22.2	946.6	924.4	22.2	392.0	17.8	532.5	4.4	976.2	233.2		
1979	2,413.9	2,396.4	17.5	1,055.9	1,038.5	17.5	439.7	11.5	598.8	6.0	1,097.2	260.8		
1980	2,627.4	2,631.3	-3.9	1,132.0	1,135.9	-3.9	463.8	-4.9	672.1	1.0	1,231.1	264.3		
I	2,032.4	2,007.5	24.9	885.7	860.9	24.9	359.0	21.8	501.9	3.1	935.1	211.5		
II	2,129.6	2,102.6	27.0	938.9	911.9	27.0	390.7	16.9	521.2	10.0	959.1	231.6		
III	2,190.5	2,171.4	19.1	959.5	940.5	19.1	399.4	15.1	541.1	3.9	989.3	241.6		
IV	2,271.9	2,254.2	17.7	1,002.2	984.5	17.7	418.9	17.3	565.6	4.4	1,021.5	248.2		
1979:														
I	2,340.6	2,316.2	24.3	1,038.6	1,014.3	24.3	434.7	18.9	579.5	5.5	1,055.5	246.5		
II	2,374.6	2,341.5	33.1	1,041.9	1,008.8	33.1	426.4	20.9	582.4	12.2	1,078.5	254.2		
III	2,444.1	2,430.8	13.3	1,064.9	1,051.6	13.3	449.2	6.7	602.4	6.6	1,112.0	267.3		
IV	2,496.3	2,497.1	-.8	1,078.3	1,079.1	-.8	448.4	-.4	630.7	-.5	1,142.8	275.1		
1980:														
I	2,571.7	2,569.1	2.5	1,116.9	1,114.4	2.5	468.2	-11.8	646.2	14.3	1,178.6	276.2		
II	2,564.8	2,557.4	7.4	1,106.4	1,099.0	7.4	441.3	3.3	657.7	4.1	1,205.6	282.8		
III	2,637.3	2,653.3	-16.0	1,129.4	1,145.4	-16.0	464.9	-8.4	680.5	-7.7	1,249.0	258.9		

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-7.—Gross national product by major type of product in 1972 dollars, 1929-80

(Billions of 1972 dollars; quarterly data at seasonally adjusted annual rates)

Year or quarter	Gross national product	Final sales	Inventory change	Goods						Services	Structures	Auto output
				Total			Durable goods		Nondurable goods			
				Total	Final sales	Inventory change	Final sales	Inventory change	Final sales	Inventory change		
1929.....	315.7	311.0	4.6	144.3	139.7	4.6	40.4	3.5	99.3	1.1	127.4	43.9
1933.....	222.1	227.0	-4.9	97.5	102.3	-4.9	17.5	-2.1	84.9	-2.8	110.7	14.0
1939.....	319.8	318.2	1.6	154.3	152.7	1.6	35.5	.7	117.2	.9	135.2	30.3
1940.....	344.1	337.9	6.2	171.7	165.5	6.2	43.1	3.4	122.4	2.8	139.9	32.5
1941.....	400.4	388.4	12.0	198.6	186.6	12.0	57.8	8.2	128.7	3.8	158.5	43.3
1942.....	461.7	456.5	5.2	221.4	216.2	5.2	75.7	3.5	140.5	1.7	193.9	46.3
1943.....	531.6	531.5	.1	263.3	263.3	.1	118.8	.7	144.4	-6	242.0	26.2
1944.....	569.1	571.4	-2.3	287.3	289.6	-2.3	135.9	-1.8	153.7	-5	263.7	18.1
1945.....	560.4	564.0	-3.6	278.5	282.2	-3.6	121.2	-3.7	161.0	.1	263.0	18.8
1946.....	478.3	466.1	12.2	238.3	226.2	12.2	60.3	10.8	165.8	1.3	200.8	39.1
1947.....	470.3	470.6	-2	237.7	237.9	-2	75.5	1.4	162.4	-1.6	188.1	44.6
1948.....	489.8	484.3	5.5	244.8	239.4	5.5	77.3	1.6	162.1	3.8	192.5	52.4
1949.....	492.2	496.6	-4.4	240.3	244.7	-4.4	78.3	-2.9	166.4	-1.5	198.3	53.6
1950.....	534.8	524.2	10.6	281.5	250.9	10.6	86.1	5.5	164.8	5.1	207.4	65.9
1951.....	579.4	565.6	13.7	283.7	270.0	13.7	98.2	9.0	171.8	4.7	231.3	64.3
1952.....	600.8	596.5	4.3	292.1	287.4	4.3	107.9	1.7	179.9	2.6	243.2	65.5
1953.....	623.6	622.1	1.5	306.8	305.3	1.5	116.2	2.3	189.1	-8	247.5	69.3
1954.....	616.1	618.2	-2.2	292.7	294.9	-2.2	109.0	-3.7	185.9	1.5	249.1	74.3
1955.....	657.5	649.8	7.7	316.7	309.0	7.7	117.2	4.5	191.9	3.2	260.1	80.7
1956.....	671.6	665.8	5.8	320.9	315.1	5.8	117.8	2.9	197.2	2.9	270.2	80.5
1957.....	683.8	682.2	1.5	321.7	320.2	1.5	119.4	.9	200.8	.6	282.4	79.7
1958.....	680.9	682.8	-1.8	311.6	313.4	-1.8	109.2	-3.4	204.3	1.6	287.6	81.7
1959.....	721.7	714.7	7.0	332.5	325.5	7.0	113.6	3.9	211.9	3.1	299.4	89.8
1960.....	737.2	733.7	3.5	335.8	332.3	3.5	115.6	2.0	216.6	1.6	312.5	89.0
1961.....	756.6	753.7	3.0	338.0	335.0	3.0	114.7	-1	220.3	3.0	326.9	91.7
1962.....	800.3	792.4	7.8	361.3	353.5	7.8	125.7	4.2	227.8	3.7	341.5	97.4
1963.....	832.5	825.0	7.5	372.2	364.7	7.5	132.5	3.4	232.2	4.2	356.2	104.1
1964.....	876.4	869.3	7.1	393.8	386.7	7.1	143.0	5.1	243.7	1.9	374.0	108.6
1965.....	929.3	917.5	11.8	422.6	410.8	11.8	157.2	8.2	253.6	3.6	390.7	116.0
1966.....	984.8	968.0	16.8	456.4	439.6	16.8	174.0	12.3	265.6	4.5	412.6	115.9
1967.....	1,011.4	999.2	12.2	463.4	451.2	12.2	178.3	6.6	272.9	5.6	434.1	113.9
1968.....	1,058.1	1,049.1	9.0	483.1	474.1	9.0	187.4	5.4	286.7	3.6	453.0	122.0
1969.....	1,087.6	1,076.6	11.1	496.0	484.9	11.1	193.0	7.2	291.9	3.9	469.2	122.5
1970.....	1,085.6	1,081.8	3.8	486.9	483.2	3.8	187.5	.0	295.7	3.7	482.4	116.3
1971.....	1,122.4	1,114.3	8.1	497.2	489.1	8.1	188.7	3.0	300.4	5.1	497.8	127.3
1972.....	1,185.9	1,175.7	10.2	529.6	519.4	10.2	207.4	7.2	312.0	3.0	519.0	137.3
1973.....	1,255.0	1,237.8	17.2	573.0	555.8	17.2	236.1	12.7	319.7	4.5	542.9	139.1
1974.....	1,248.0	1,236.4	11.6	564.0	552.4	11.6	234.1	9.4	318.3	2.2	563.0	121.0
1975.....	1,233.9	1,240.6	-6.7	549.2	555.9	-6.7	230.3	-6.4	325.7	-3	576.4	108.3
1976.....	1,300.4	1,292.7	7.8	588.9	581.1	7.8	242.8	5.4	338.3	2.4	595.6	116.0
1977.....	1,371.7	1,359.3	12.3	628.8	616.5	12.3	264.2	5.8	352.3	6.5	618.2	124.6
1978.....	1,436.9	1,423.0	14.0	655.9	641.9	14.0	278.6	10.9	363.3	3.0	649.0	132.1
1979.....	1,483.0	1,472.9	10.2	674.5	664.3	10.2	290.2	6.7	374.1	3.5	678.0	130.6
1980 ^a	1,480.7	1,481.8	-1.2	665.9	667.1	-1.2	281.4	-2.0	385.6	.8	696.1	118.7
1978:.....												
I.....	1,402.3	1,384.6	17.7	635.4	617.7	17.7	261.6	13.8	356.1	3.9	639.9	127.0
II.....	1,432.8	1,416.8	16.0	655.1	639.0	16.0	280.5	10.1	358.5	5.9	644.2	133.6
III.....	1,446.7	1,435.2	11.5	659.5	648.0	11.5	282.4	9.2	365.6	2.3	652.8	134.4
IV.....	1,465.8	1,455.3	10.6	673.5	662.9	10.6	290.1	10.6	372.8	-1	658.9	133.4
1979:.....												
I.....	1,479.9	1,464.4	15.4	681.8	666.4	15.4	295.0	11.4	371.3	4.0	669.1	129.0
II.....	1,473.4	1,455.0	18.4	669.1	650.8	18.4	283.8	11.9	367.0	6.4	674.8	129.5
III.....	1,488.2	1,480.6	7.6	673.6	666.0	7.6	292.1	3.8	373.8	3.8	683.0	131.6
IV.....	1,490.6	1,491.3	-7	673.3	674.0	-7	289.9	-3	384.1	-4	684.9	132.4
1980:.....												
I.....	1,501.9	1,502.8	-9	682.1	683.0	-9	295.2	-4.6	387.7	3.7	690.7	129.1
II.....	1,463.3	1,462.0	1.3	658.1	656.8	1.3	270.1	-7	386.7	.6	690.6	114.6
III.....	1,471.9	1,476.9	-5.0	657.5	662.4	-5.0	278.4	-3.8	384.0	-1.1	699.9	114.5

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-8.—Gross national product: Receipts and expenditures by major economic groups, 1929–80

[Billions of dollars]

Year or quarter	Persons					Government						
	Disposable personal income			Personal consumption expenditures	Personal saving or dis-saving (—)	Net receipts			Expenditures			Surplus or deficit (—), national income and product accounts
	Total ¹	Less: Interest paid and transfers ²	Equals: Total excluding interest paid and transfers			Tax and nontax receipts or accruals	Less: Transfers, interest, and subsidies ³	Equals: Net receipts	Total expenditures	Less: Transfers, interest, and subsidies ³	Equals: Purchases of goods and services	
1929.....	82.4	1.9	80.5	77.3	3.3	11.3	1.5	9.8	10.3	1.5	8.8	1.0
1933.....	45.6	.7	44.9	45.8	— .9	9.3	2.5	6.9	10.7	2.5	8.2	—1.4
1939.....	70.0	.9	69.2	67.0	2.2	15.4	4.1	11.3	17.6	4.1	13.5	—2.2
1940.....	75.3	1.0	74.4	71.0	3.4	17.7	4.3	13.5	18.4	4.3	14.2	— .7
1941.....	92.2	1.1	91.1	80.8	10.3	25.0	3.8	21.2	28.8	3.8	24.9	—3.8
1942.....	116.6	.8	115.8	88.6	27.2	32.6	4.2	28.4	64.0	4.2	59.8	—31.4
1943.....	133.0	.7	132.3	99.4	32.9	49.2	4.4	44.7	93.3	4.4	88.9	—44.1
1944.....	145.6	.8	144.8	108.2	36.6	51.2	6.0	45.2	103.0	6.0	97.0	—51.8
1945.....	149.1	.9	148.2	119.5	28.7	53.2	9.9	43.3	92.7	9.9	82.8	—39.5
1946.....	158.9	1.4	157.5	143.8	13.7	51.0	18.0	33.0	45.6	18.0	27.5	—5.4
1947.....	168.7	1.7	167.0	161.7	5.2	56.9	17.1	39.9	42.5	17.1	25.5	14.4
1948.....	188.0	2.1	185.9	174.7	11.1	58.9	18.5	40.4	50.5	18.5	32.0	8.4
1949.....	187.9	2.3	185.6	178.1	7.5	55.9	20.9	35.0	59.3	20.9	38.4	—3.4
1950.....	206.6	2.7	203.9	192.0	11.9	69.0	22.5	46.5	61.0	22.5	38.5	8.0
1951.....	226.0	2.9	223.1	207.1	16.1	85.2	19.1	66.2	79.2	19.1	60.1	6.1
1952.....	237.7	3.3	234.5	217.1	17.4	90.1	18.3	71.8	93.9	18.3	75.6	—3.8
1953.....	252.2	4.0	248.2	229.7	18.5	94.6	19.0	75.6	101.6	19.0	82.5	—6.9
1954.....	257.1	4.3	252.8	235.8	17.0	89.9	21.3	68.6	97.0	21.3	75.8	—7.1
1955.....	275.0	4.8	270.1	253.7	16.4	101.1	23.0	78.1	98.0	23.0	75.0	3.1
1956.....	292.9	5.6	287.3	266.0	21.3	109.7	25.1	84.6	104.5	25.1	79.4	5.2
1957.....	308.6	5.9	302.7	280.4	22.3	116.2	28.2	88.0	115.3	28.2	87.1	.9
1958.....	319.0	6.0	313.0	289.5	23.6	115.0	32.6	82.4	127.6	32.6	95.0	—12.6
1959.....	338.4	6.5	331.9	310.8	21.1	129.4	33.4	96.0	131.0	33.4	97.6	—1.6
1960.....	352.0	7.4	344.6	324.9	19.7	139.5	36.1	103.4	136.4	36.1	100.3	3.1
1961.....	365.8	7.7	358.0	335.0	23.0	144.8	40.9	103.9	149.1	40.9	108.2	—4.3
1962.....	386.8	8.3	378.5	355.2	23.3	156.7	42.4	114.3	160.5	42.4	118.0	—3.8
1963.....	405.9	9.4	396.5	374.6	21.9	168.5	44.1	124.4	167.8	44.1	123.7	.7
1964.....	440.6	10.5	430.1	400.5	29.6	174.0	46.5	127.5	176.3	46.5	129.8	—2.3
1965.....	475.8	11.7	464.0	430.4	33.7	188.3	49.5	138.9	187.8	49.5	138.4	.5
1966.....	513.7	12.6	501.1	465.1	36.0	212.3	54.9	157.4	213.6	54.9	158.7	—1.3
1967.....	547.9	13.3	534.5	490.3	44.3	228.2	62.2	166.0	242.4	62.2	180.2	—14.2
1968.....	593.4	14.6	578.8	536.9	41.9	263.1	70.1	193.0	269.1	70.1	199.0	—6.0
1969.....	638.9	16.6	622.4	581.8	40.6	296.7	78.0	218.7	286.8	78.0	208.8	9.9
1970.....	695.3	17.8	677.5	621.7	55.8	302.8	93.3	209.6	313.4	93.3	220.1	—10.6
1971.....	751.8	18.9	732.9	672.2	60.7	322.6	107.1	215.4	342.0	107.1	234.9	—19.4
1972.....	810.3	20.7	789.7	737.1	52.6	368.3	118.5	249.8	371.6	118.5	253.1	—3.3
1973.....	914.5	23.6	890.9	812.0	79.0	413.1	134.8	278.3	405.3	134.8	270.4	.8
1974.....	998.3	25.1	973.2	888.1	85.1	455.2	155.9	299.3	460.0	155.9	304.1	—4.7
1975.....	1,096.1	25.3	1,070.7	976.4	94.3	470.5	194.4	276.1	534.3	194.4	339.9	—63.8
1976.....	1,194.4	27.6	1,166.8	1,084.3	82.5	538.4	212.8	325.6	574.9	212.8	362.1	—36.5
1977.....	1,311.5	32.0	1,279.6	1,205.5	74.1	605.7	229.5	376.1	624.0	229.5	394.5	—18.3
1978.....	1,462.9	37.9	1,425.1	1,348.7	76.3	681.6	249.3	432.4	681.9	249.3	432.6	— .2
1979.....	1,641.7	44.6	1,597.1	1,510.9	86.2	765.2	279.5	485.7	753.2	279.5	473.8	11.9
1980 P.....	1,821.8	47.5	1,774.3	1,670.1	104.2	834.2	334.2	500.0	869.0	334.2	534.8	—34.8

See next page for continuation of table.

TABLE B-8.—Gross national product: Receipts and expenditures by major economic groups, 1929–80—Continued

[Billions of dollars]

Year or quarter	Business			Net transfers and interest paid to foreigners ⁴	International			Excess of net transfers and interest or of net exports (—) ⁷	Total income or receipts	Statistical discrepancy	Gross national product or expenditure
	Gross retained earnings ¹	Gross private domestic investment ²	Excess of earnings or of investment (—)		Net exports of goods and services						
					Exports	Less: Imports	Equals: Net exports				
1929	11.6	16.2	—4.6	0.4	7.0	5.9	1.1	—0.8	102.3	1.1	103.4
1933	3.1	1.4	1.7	.2	2.4	2.0	.4	—2	55.1	.7	55.8
1939	8.8	9.3	—4	.2	4.6	3.4	1.2	—1.0	89.5	1.4	90.9
1940	10.8	13.1	—2.3	.2	5.4	3.6	1.8	—1.5	98.9	1.1	100.0
1941	12.1	17.9	—5.8	.2	6.1	4.7	1.5	—1.3	124.5	.6	125.0
1942	14.8	9.9	4.9	.2	5.0	4.8	.2	.1	159.3	—8	158.5
1943	16.7	5.8	10.9	.2	4.6	6.5	—1.9	2.1	193.9	—1.8	192.1
1944	17.6	7.2	10.5	.3	5.5	7.2	—1.7	2.0	207.9	2.7	210.6
1945	16.0	10.6	5.4	.8	7.4	7.9	—5	1.3	208.3	4.1	212.4
1946	15.9	30.7	—14.7	2.9	15.1	7.3	7.8	—4.9	209.3	.5	209.8
1947	22.1	34.0	—11.9	2.6	20.2	8.3	11.9	—9.3	231.5	1.5	233.1
1948	30.2	45.9	—15.6	4.5	17.5	10.5	6.9	—2.4	261.1	—1.6	259.5
1949	31.5	35.3	—3.8	5.6	16.3	9.8	6.5	—9	257.8	.6	258.3
1950	30.7	53.8	—23.1	4.0	14.4	12.2	2.2	1.8	285.2	1.3	286.5
1951	34.8	59.2	—24.4	3.5	19.7	15.3	4.4	—9	327.6	3.2	330.8
1952	37.4	52.1	—14.7	2.6	19.1	15.9	3.2	—6	346.2	1.7	348.0
1953	38.2	53.3	—15.1	2.5	18.0	16.7	1.3	—3	364.5	2.3	366.8
1954	41.1	52.7	—11.6	2.3	18.7	16.2	2.5	—2	364.8	2.0	366.8
1955	47.9	68.4	—20.5	2.5	21.0	18.0	3.0	—4	398.7	1.3	400.0
1956	49.4	71.0	—21.6	2.5	25.0	19.8	5.3	—2.8	423.8	—2.1	421.7
1957	52.0	69.2	—17.2	2.5	28.1	20.8	7.3	—4.8	445.2	—1.2	444.0
1958	51.7	61.9	—10.2	2.4	24.2	21.0	3.3	—9	449.5	.2	449.7
1959	58.7	78.1	—19.4	2.6	24.8	23.4	1.4	1.2	489.2	—1.3	487.9
1960	58.3	75.9	—17.6	2.6	28.9	23.4	5.5	—2.8	508.9	—2.4	506.5
1961	60.0	74.8	—14.8	2.8	29.9	23.3	6.6	—3.8	524.7	—1	524.6
1962	67.2	85.4	—18.3	3.0	31.8	25.4	6.4	—3.4	562.9	2.1	565.0
1963	71.0	90.9	—19.9	3.2	34.2	26.6	7.6	—4.4	595.0	1.7	596.7
1964	76.7	97.4	—20.6	3.2	38.8	28.8	10.1	—6.8	637.6	.1	637.7
1965	86.0	113.5	—27.5	3.3	41.1	32.3	8.8	—5.4	692.3	—1.2	691.1
1966	92.7	125.7	—33.0	3.5	44.6	38.1	6.5	—3.0	754.6	1.4	756.0
1967	95.6	122.8	—27.2	3.7	47.3	41.0	6.3	—2.6	799.8	—3	799.6
1968	100.0	133.3	—33.3	3.7	52.4	48.1	4.3	—6	875.5	—2.1	873.4
1969	103.0	149.3	—46.2	3.8	57.5	53.3	4.2	—4	947.9	—3.9	944.0
1970	102.8	144.2	—41.4	4.3	65.7	59.0	6.7	—2.3	994.2	—1.5	992.7
1971	119.7	166.4	—46.7	5.5	68.8	64.7	4.1	1.4	1,073.5	4.1	1,077.6
1972	136.6	195.0	—58.4	6.5	77.5	76.7	.7	5.8	1,182.6	3.3	1,185.9
1973	148.7	229.8	—81.1	7.7	109.6	95.4	14.2	—6.5	1,325.6	.8	1,326.4
1974	149.4	228.7	—79.2	8.5	146.2	132.8	13.4	—4.9	1,430.5	3.7	1,434.2
1975	188.4	206.1	—17.7	8.5	154.9	128.1	26.8	—18.3	1,543.7	5.5	1,549.2
1976	211.9	257.9	—46.0	8.7	170.9	157.1	13.8	—5.1	1,712.9	5.1	1,718.0
1977	248.3	322.3	—74.0	9.6	183.3	187.5	—4.2	13.9	1,913.6	4.4	1,918.0
1978	279.1	375.3	—96.3	13.2	219.8	220.4	—6	13.8	2,149.7	6.4	2,156.1
1979	312.7	415.8	—103.1	16.2	281.3	267.9	13.4	2.8	2,411.7	2.2	2,413.9
1980 ^p	333.4	395.1	—61.6	18.0	341.2	313.6	27.5	—9.5	2,625.7	1.7	2,627.4

¹ Personal income less personal tax and nontax payments (fines, penalties, etc.).

² Interest paid by consumers to business and net personal transfer payments to foreigners.

³ Government transfer payments to persons and foreigners, net interest paid by government less dividends received by State and local government, subsidies less current surplus of government enterprises, and disbursements less wage accruals.

⁴ Undistributed corporate profits with inventory valuation and capital consumption adjustments, corporate and noncorporate capital consumption allowances with capital consumption adjustment, and private wage accruals less disbursements.

⁵ See Table B-14.

⁶ Net transfers to foreigners by persons and government and interest paid by government to foreigners.

⁷ Capital grants received by the United States (net) less net foreign investment.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-9.—Gross national product by sector, 1929-80

[Billions of dollars, except as noted; quarterly data at seasonally adjusted annual rates]

Year or quarter	Gross national product	Gross domestic product									Rest of the world	Percent change from preceding period, gross domestic product ^a
		Total	Business				Households and institutions	Government ^a				
			Total	Non-farm ¹	Farm	Statistical discrepancy		Total	Federal	State and local		
1929.....	103.4	102.6	95.4	84.7	9.7	1.1	2.9	4.3	0.9	3.5	0.8	
1933.....	55.8	55.5	49.1	43.8	4.6	.7	1.7	4.7	1.2	3.5	.3	-4.1
1939.....	90.9	90.5	80.6	72.9	6.3	1.4	2.3	7.6	3.4	4.2	.5	7.0
1940.....	100.0	99.6	89.4	81.8	6.4	1.1	2.4	7.8	3.5	4.3	.4	10.1
1941.....	125.0	124.5	112.6	103.1	8.9	.6	2.5	9.4	5.0	4.4	.5	25.0
1942.....	158.5	157.9	139.9	127.7	13.0	-.8	2.9	15.1	10.6	4.5	.5	26.8
1943.....	192.1	191.6	162.8	149.3	15.3	-1.8	3.2	25.6	20.9	4.7	.5	21.4
1944.....	210.6	210.1	174.2	156.2	15.3	2.7	3.7	32.2	27.2	4.9	.5	9.6
1945.....	212.4	212.0	172.8	152.7	16.0	4.1	4.1	35.2	29.8	5.4	.4	.9
1946.....	209.8	209.0	183.8	164.4	18.8	.5	4.5	20.8	14.6	6.2	.8	-1.4
1947.....	233.1	231.8	210.0	188.2	20.2	1.5	5.1	16.7	9.4	7.3	1.2	10.9
1948.....	259.5	257.9	234.9	213.1	23.3	-1.6	5.6	17.4	8.9	8.5	1.6	11.3
1949.....	258.3	256.9	231.5	212.2	18.8	.6	5.9	19.4	10.0	9.4	1.4	-4
1950.....	286.5	284.8	257.5	236.3	20.0	1.3	6.4	20.9	10.7	10.1	1.6	10.9
1951.....	330.8	328.7	294.4	268.3	22.9	3.2	6.9	27.4	16.2	11.2	2.1	15.4
1952.....	348.0	345.7	307.3	283.4	22.2	1.7	7.2	31.2	18.9	12.3	2.3	5.2
1953.....	366.8	364.6	324.9	302.3	20.3	2.3	7.8	31.9	18.6	13.3	2.2	5.5
1954.....	366.8	364.5	323.9	302.3	19.7	2.0	8.1	32.5	17.8	14.7	2.3	-.0
1955.....	400.0	397.3	354.0	333.9	18.8	1.3	9.1	34.2	18.4	15.8	2.8	9.0
1956.....	421.7	418.5	372.1	355.7	18.6	-2.1	9.8	36.6	19.0	17.6	3.2	5.3
1957.....	444.0	440.5	390.8	373.7	18.4	-1.2	10.5	39.1	19.6	19.6	3.5	5.2
1958.....	449.7	446.6	393.1	372.2	20.7	.2	11.4	42.1	20.5	21.6	3.0	1.4
1959.....	487.9	484.6	428.3	410.6	19.0	-1.3	12.3	44.0	20.9	23.1	3.3	8.5
1960.....	506.5	502.9	442.0	424.2	20.2	-2.4	13.8	47.1	21.7	25.5	3.6	3.8
1961.....	524.6	520.7	455.7	435.7	20.2	-.1	14.4	50.5	22.6	27.9	3.9	3.5
1962.....	565.0	560.5	490.6	468.1	20.4	2.1	15.5	54.3	24.1	30.2	4.6	7.7
1963.....	596.7	591.8	517.2	495.0	20.5	1.7	16.6	58.0	25.2	32.9	4.9	5.6
1964.....	637.7	632.3	551.6	532.2	19.3	.1	17.8	62.9	27.0	35.9	5.5	6.8
1965.....	691.1	685.2	598.4	577.7	21.9	-1.2	19.2	67.6	28.3	39.3	5.9	8.4
1966.....	756.0	750.3	652.6	628.4	22.8	1.4	21.1	76.5	32.4	44.1	5.6	9.5
1967.....	799.6	793.7	685.1	663.3	22.1	-.3	23.4	85.1	35.6	49.5	5.9	5.8
1968.....	873.4	866.7	745.4	725.0	22.6	-2.1	26.1	95.2	39.3	55.9	6.7	9.2
1969.....	944.0	937.1	803.2	782.1	25.1	-3.9	29.4	104.5	41.9	62.6	6.9	8.1
1970.....	992.7	985.4	837.3	813.1	25.8	-1.5	32.3	115.8	44.8	71.1	7.3	5.2
1971.....	1,077.6	1,068.5	907.1	875.4	27.6	4.1	35.4	126.0	46.8	79.3	9.2	8.4
1972.....	1,185.9	1,175.0	998.6	963.4	31.9	3.3	38.6	137.8	50.1	87.7	10.9	10.0
1973.....	1,326.4	1,310.4	1,118.7	1,068.0	49.9	.8	42.1	149.6	51.9	97.7	16.0	11.5
1974.....	1,434.2	1,414.4	1,206.4	1,155.0	47.7	3.7	45.8	162.2	54.9	107.3	19.8	7.9
1975.....	1,549.2	1,531.9	1,301.7	1,247.3	48.9	5.5	50.6	179.6	59.0	120.6	17.3	8.3
1976.....	1,718.0	1,697.5	1,447.3	1,396.3	45.9	5.1	55.6	194.6	62.4	132.3	20.5	10.8
1977.....	1,918.0	1,894.5	1,623.1	1,571.1	47.6	4.4	61.0	210.4	66.3	144.0	23.5	11.6
1978.....	2,156.1	2,126.2	1,829.4	1,765.1	57.9	6.4	67.5	229.2	71.7	157.5	29.9	12.2
1979.....	2,413.9	2,370.1	2,046.3	1,974.1	70.0	2.2	75.7	248.1	75.8	172.3	43.8	11.5
1980 ^p	2,627.4	2,577.3	2,222.2	2,152.4	68.0	1.7	85.9	269.3	81.9	187.4	50.1	8.7
1978:												
I.....	2,032.4	2,004.2	1,715.9	1,663.6	52.9	-.5	65.4	222.9	70.2	152.7	28.2	8.1
II.....	2,129.6	2,103.2	1,810.4	1,746.6	56.4	7.3	66.6	226.3	70.9	155.5	26.3	21.3
III.....	2,190.5	2,161.0	1,862.2	1,793.0	59.1	10.0	68.1	230.6	71.5	159.1	29.5	11.4
IV.....	2,271.9	2,236.2	1,929.2	1,857.2	63.3	8.7	70.0	237.1	74.4	162.7	35.7	14.7
1979:												
I.....	2,340.6	2,301.0	1,987.3	1,913.5	68.0	5.8	72.3	241.4	74.6	166.8	39.6	12.1
II.....	2,374.6	2,333.7	2,014.2	1,942.9	70.6	.7	74.2	245.4	74.6	170.8	40.9	5.8
III.....	2,444.1	2,396.0	2,069.8	1,996.5	70.4	2.8	76.9	249.4	74.9	174.5	48.1	11.1
IV.....	2,496.3	2,449.7	2,113.9	2,043.6	71.0	-.7	79.4	256.4	79.0	177.3	46.6	9.3
1980:												
I.....	2,571.7	2,520.2	2,176.9	2,106.4	67.7	2.8	82.1	261.2	79.6	181.6	51.5	12.0
II.....	2,564.8	2,516.7	2,166.4	2,100.8	67.5	-1.9	84.4	265.9	80.5	185.4	48.1	-.6
III.....	2,637.3	2,586.9	2,230.0	2,159.1	67.9	3.0	86.9	269.9	80.7	189.3	50.5	11.6

¹ Includes compensation of employees in government enterprises.² Compensation of government employees.^a Changes are based on unrounded data and therefore may differ slightly from those obtained from data shown here. See Table B-1 for percent changes in gross national product.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-10.—Gross national product by sector in 1972 dollars, 1929-80

(Billions of 1972 dollars, except as noted; quarterly data at seasonally adjusted annual rates)

Year or quarter	Gross national product	Gross domestic product									Rest of the world	Percent change from preceding period, gross domestic product ³
		Total	Business			Households and institutions	Government ²					
			Total	Non-farm ¹	Farm		Statistical discrepancy	Total	Federal	State and local		
1929.....	315.7	313.2	271.5	244.7	23.6	3.1	15.6	26.2	5.2	21.0	2.4	.....
1933.....	222.1	220.9	180.0	152.5	24.9	2.6	12.2	28.8	6.6	22.1	1.3	-2.1
1939.....	319.8	318.2	261.0	231.3	25.2	4.6	15.1	42.1	16.9	25.2	1.6	7.8
1940.....	344.1	342.8	282.7	254.6	24.5	3.6	16.1	44.0	18.6	25.4	1.4	7.7
1941.....	400.4	398.7	327.6	299.8	26.2	1.6	15.9	55.2	29.6	25.6	1.7	16.3
1942.....	461.7	460.1	361.8	335.3	28.6	-2.1	16.4	81.9	56.7	25.2	1.5	15.4
1943.....	531.6	530.3	385.6	362.1	27.7	-4.2	15.2	129.4	105.0	24.5	1.3	15.2
1944.....	569.1	567.7	403.6	370.1	27.1	6.4	15.1	149.1	125.2	23.9	1.4	7.1
1945.....	560.4	559.3	397.9	362.8	25.6	9.4	15.0	146.4	121.8	24.6	1.1	-1.5
1946.....	478.3	476.4	385.5	358.6	25.8	1.1	15.1	75.9	49.7	26.2	1.8	-14.8
1947.....	470.3	467.8	393.8	367.0	24.0	2.9	16.0	58.0	29.8	28.2	2.5	-1.8
1948.....	489.8	486.8	412.0	389.0	25.8	-2.8	16.7	58.1	29.2	29.0	3.0	4.1
1949.....	492.2	489.4	409.8	383.4	25.6	.8	17.3	62.3	31.3	31.0	2.7	.5
1950.....	534.8	531.8	448.7	419.4	27.0	2.4	18.3	64.7	32.7	32.0	3.0	8.7
1951.....	579.4	575.6	478.0	447.2	25.8	5.0	18.7	79.0	46.2	32.8	3.7	8.3
1952.....	600.8	596.9	492.8	463.7	26.4	2.6	18.6	85.5	51.6	33.9	3.9	3.7
1953.....	623.6	619.8	515.6	484.3	27.7	3.6	19.3	85.0	49.6	35.4	3.7	3.8
1954.....	616.1	612.1	508.5	477.0	28.4	3.1	19.4	84.1	47.2	36.9	4.0	-1.2
1955.....	657.5	653.0	547.0	516.0	29.3	1.8	21.4	84.6	45.9	38.6	4.5	6.7
1956.....	671.6	666.5	557.4	531.5	28.9	-3.0	22.5	86.7	45.6	41.0	5.1	2.1
1957.....	683.8	678.3	566.1	539.5	28.2	-1.7	23.1	89.1	45.8	43.3	5.5	1.8
1958.....	680.9	676.3	561.7	532.0	29.3	.3	24.2	90.4	44.5	45.9	4.6	-3
1959.....	721.7	716.8	600.0	574.0	27.8	-1.9	24.7	92.2	44.5	47.7	4.9	6.0
1960.....	737.2	732.0	610.1	584.2	29.2	-3.3	26.6	95.3	45.2	50.1	5.2	2.1
1961.....	756.6	751.0	625.1	596.3	28.9	-2	27.0	98.9	46.2	52.7	5.7	2.6
1962.....	800.3	793.8	663.2	631.5	28.8	2.9	28.1	102.5	48.3	54.3	6.5	5.7
1963.....	832.5	825.6	691.6	659.7	29.6	2.3	28.9	105.2	48.2	57.0	6.9	4.0
1964.....	876.4	868.9	730.3	701.3	28.8	-2	29.8	108.8	48.5	60.4	7.5	5.2
1965.....	929.3	921.4	777.7	749.6	29.8	-1.6	30.9	112.7	48.7	64.0	7.9	6.0
1966.....	984.8	977.5	824.0	794.1	28.2	1.7	32.6	120.8	53.0	67.9	7.4	6.1
1967.....	1,011.4	1,003.9	842.0	812.8	29.5	-3	34.3	127.7	57.2	70.5	7.5	2.7
1968.....	1,058.1	1,050.0	882.1	855.6	29.0	-2.5	35.4	132.4	58.0	74.4	8.2	4.6
1969.....	1,087.6	1,079.7	907.1	881.9	29.5	-4.4	37.0	135.7	58.2	77.4	7.9	2.8
1970.....	1,085.6	1,077.6	904.8	875.4	31.1	-1.7	36.7	136.1	55.2	80.9	8.0	-3
1971.....	1,122.4	1,112.9	938.6	901.7	32.6	4.2	37.6	136.7	52.5	84.2	9.5	3.3
1972.....	1,185.9	1,175.0	998.6	963.4	31.9	3.3	38.6	137.8	50.1	87.7	10.9	5.6
1973.....	1,255.0	1,239.9	1,061.4	1,029.1	31.6	.7	39.4	139.1	48.2	90.8	15.1	5.5
1974.....	1,248.0	1,230.7	1,049.1	1,014.1	31.8	3.2	39.3	142.3	48.5	93.8	17.3	-7
1975.....	1,233.9	1,220.0	1,034.7	996.7	33.6	4.4	40.5	144.9	48.4	96.5	13.9	-9
1976.....	1,300.4	1,284.8	1,097.6	1,061.6	32.1	3.9	40.9	146.3	48.5	97.8	15.6	5.3
1977.....	1,371.7	1,354.7	1,165.1	1,128.9	33.0	3.2	41.3	148.4	48.6	99.7	16.9	5.4
1978.....	1,436.9	1,416.8	1,222.6	1,185.5	32.9	4.2	42.3	151.9	49.3	102.6	20.1	4.6
1979.....	1,483.0	1,455.9	1,258.3	1,222.1	34.9	1.4	43.7	153.9	49.0	104.9	27.2	2.8
1980 ^a	1,480.7	1,452.1	1,251.6	1,215.4	35.2	1.0	45.3	155.2	49.2	106.0	28.6	-3
1978:												
I.....	1,402.3	1,382.7	1,189.4	1,156.3	33.5	-4	42.2	151.0	49.0	102.0	19.6	2.2
II.....	1,432.8	1,414.9	1,221.0	1,184.5	31.5	4.9	42.2	151.8	49.3	102.5	17.9	9.7
III.....	1,446.7	1,427.0	1,232.4	1,192.7	33.0	6.6	42.3	152.3	49.5	102.8	19.7	3.4
IV.....	1,465.8	1,442.6	1,247.6	1,208.7	33.4	5.6	42.6	152.3	49.2	103.1	23.2	4.4
1979:												
I.....	1,479.9	1,454.6	1,258.8	1,221.8	33.3	3.7	42.9	152.9	49.1	103.8	25.3	3.4
II.....	1,473.4	1,447.8	1,250.8	1,215.0	35.3	.5	43.3	153.7	49.0	104.7	25.6	-1.9
III.....	1,488.2	1,458.6	1,260.0	1,223.2	35.1	1.7	44.2	154.4	49.0	105.3	29.6	3.0
IV.....	1,490.6	1,462.4	1,263.6	1,228.2	35.8	-4	44.4	154.5	48.9	105.6	28.1	1.0
1980:												
I.....	1,501.9	1,471.5	1,271.9	1,233.3	37.0	1.6	44.8	154.8	49.0	105.8	30.4	2.5
II.....	1,463.3	1,435.5	1,235.2	1,198.5	37.8	-1.1	44.9	155.4	49.4	105.9	27.8	-9.4
III.....	1,471.9	1,443.4	1,242.3	1,207.6	33.1	1.7	45.6	155.5	49.4	106.1	28.5	2.2

¹ Includes compensation of employees in government enterprises.² Compensation of government employees.³ Changes are based on unrounded data and therefore may differ slightly from those obtained from data shown here. See Table B-2 for percent changes in gross national product in 1972 dollars.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-11.—Gross domestic product of nonfinancial corporate business, 1929-80

(Billions of dollars; quarterly data at seasonally adjusted annual rates)

Year or quarter	Gross domestic product of non-financial corporate business	Capital consumption allowances with capital consumption adjustment	Net domestic product														
			Total	Indirect business tax, etc. ¹	Total	Compensation of employees	Domestic income									Capital consumption adjustment	Net interest
							Total	Corporate profits with inventory valuation and capital consumption adjustments						Inventory valuation adjustment			
								Profits before tax	Profits tax liability	Profits after tax							
										Total	Dividends	Undistributed profits					
1929	50.1	5.5	44.5	3.4	41.2	32.3	7.5	8.4	1.2	7.3	5.1	2.2	0.5	-1.4	1.4		
1933	24.4	4.3	20.2	3.8	16.3	16.7	-2.1	.6	.5	.1	2.0	-1.9	-2.1	-.6	1.7		
1939	43.7	4.8	39.0	5.1	33.9	28.2	4.2	6.1	1.4	4.7	3.3	1.4	-.7	-1.1	1.5		
1940	50.4	4.9	45.4	5.5	40.0	31.2	7.4	8.8	2.7	6.1	3.5	2.6	-.2	-1.2	1.4		
1941	65.6	5.4	60.2	6.4	53.8	39.8	12.7	16.4	7.5	9.0	3.9	5.0	-.5	-1.3	1.3		
1942	82.9	6.1	76.8	6.8	70.0	51.0	17.7	20.1	11.2	8.9	3.7	5.2	-1.2	-1.2	1.3		
1943	98.7	6.2	92.4	7.3	85.2	62.2	21.8	23.6	13.8	9.8	3.9	5.8	-.8	-.9	1.1		
1944	102.1	6.3	95.8	8.1	87.7	65.1	21.6	22.2	12.6	9.6	4.1	5.6	-.3	-.3	1.0		
1945	95.3	6.5	88.8	8.9	79.9	61.9	17.1	17.8	10.2	7.6	4.1	3.5	-.6	-.2	1.0		
1946	99.3	7.6	91.8	10.1	81.6	67.2	13.8	22.0	8.6	13.4	4.8	8.6	-.5	-3.0	.7		
1947	120.0	9.3	110.7	11.2	99.6	79.1	19.7	29.1	10.8	18.3	5.5	12.8	-.5	-3.5	.8		
1948	137.3	10.9	126.4	12.1	114.3	87.8	25.6	31.8	11.8	20.0	6.0	14.0	-2.2	-4.0	.9		
1949	133.5	11.7	121.8	12.6	109.2	85.3	22.9	24.9	9.3	15.6	6.0	9.6	1.9	-3.9	1.0		
1950	151.9	12.6	139.3	14.1	125.2	94.7	29.6	38.5	16.9	21.6	7.5	14.1	-5.0	-3.9	.9		
1951	174.5	14.6	159.9	15.2	144.7	110.2	33.4	39.1	21.2	17.9	7.1	10.8	-1.2	-4.6	1.1		
1952	182.3	15.8	166.6	16.8	149.7	118.3	30.2	33.8	17.8	16.0	7.1	8.8	1.0	-4.5	1.2		
1953	195.0	16.8	178.2	18.2	160.0	128.7	30.0	34.9	18.5	16.4	7.3	9.1	-1.0	-3.9	1.3		
1954	191.9	17.9	174.0	17.4	156.6	126.5	28.6	32.1	15.6	16.4	7.4	9.0	-.3	-3.2	1.5		
1955	216.7	19.1	197.6	19.2	178.4	138.5	38.3	42.0	20.2	21.8	8.5	13.4	-1.7	-2.0	1.6		
1956	231.6	21.8	209.8	20.8	189.0	151.4	35.9	41.8	20.1	21.8	9.0	12.7	-2.7	-3.2	1.7		
1957	242.3	23.8	218.5	22.4	196.1	159.1	34.9	39.8	19.1	20.7	9.3	11.4	-1.5	-3.4	2.2		
1958	236.3	24.8	211.6	22.8	188.8	155.9	30.2	33.7	16.2	17.5	9.3	8.2	-.3	-3.2	2.7		
1959	266.0	25.8	240.2	25.4	214.8	171.6	40.1	43.1	20.7	22.4	10.0	12.4	-.3	-2.7	3.1		
1960	277.0	26.8	250.2	28.3	221.9	181.1	37.4	39.7	19.2	20.5	10.6	9.9	-.2	-2.1	3.5		
1961	285.0	27.5	257.5	30.1	227.3	185.1	38.3	39.5	19.5	20.1	10.6	9.5	-.3	-1.5	3.9		
1962	311.3	28.4	283.0	33.0	249.9	199.8	45.6	44.2	20.6	23.5	11.4	12.2	.0	1.4	4.5		
1963	331.8	29.4	302.3	35.6	266.8	210.7	51.2	48.9	22.8	26.2	12.6	13.5	.1	2.3	4.8		
1964	358.4	30.8	327.6	38.4	289.3	226.3	57.7	55.4	24.0	31.4	13.7	17.7	-.5	2.9	5.3		
1965	393.6	32.7	360.9	41.1	319.8	246.1	67.7	65.2	27.2	38.0	15.6	22.4	-1.2	3.7	6.1		
1966	431.5	35.6	395.9	42.9	353.0	273.5	72.2	70.3	29.5	40.8	16.8	24.0	-2.1	3.9	7.4		
1967	454.1	38.9	415.2	45.8	369.5	291.9	68.8	66.3	27.7	38.6	17.5	21.2	-1.6	4.0	8.7		
1968	500.2	42.6	457.6	51.5	406.1	322.8	73.3	72.9	33.4	39.5	19.1	20.4	-3.7	4.0	10.1		
1969	544.1	47.1	497.0	58.0	439.1	358.5	67.5	69.4	33.1	36.2	19.1	17.1	-5.9	4.0	13.1		
1970	563.7	52.2	511.4	63.4	448.1	378.4	52.7	56.8	27.0	29.8	18.5	11.3	-6.6	2.4	17.0		
1971	609.9	57.3	552.6	70.5	482.1	402.0	62.1	65.4	29.8	35.6	18.5	17.1	-4.6	1.3	18.0		
1972	678.0	62.6	615.5	76.7	538.7	447.0	72.7	76.6	33.6	43.0	20.1	22.9	-6.6	2.7	19.1		
1973	759.4	67.9	691.6	83.7	607.9	506.2	78.6	86.0	40.0	56.0	21.1	35.0	-20.0	2.6	23.0		
1974	818.9	79.5	739.4	89.7	649.7	556.5	63.6	105.3	42.0	63.3	21.4	41.9	-40.0	-1.8	29.6		
1975	890.0	94.9	795.1	97.1	697.9	581.1	86.1	107.3	41.2	66.1	25.7	40.4	-11.6	-9.7	30.8		
1976	1,001.3	104.8	896.5	105.3	791.2	654.4	107.3	135.0	52.6	82.3	30.1	52.2	-14.7	-13.0	29.5		
1977	1,129.5	116.6	1,012.8	115.1	897.8	738.2	126.3	153.5	59.4	94.1	31.9	62.2	-15.8	-11.4	33.2		
1978	1,270.7	129.7	1,141.0	125.2	1,015.8	841.4	137.6	174.3	67.3	107.0	36.0	70.9	-24.3	-12.4	36.8		
1979	1,417.0	147.5	1,269.5	133.6	1,135.9	954.0	136.7	193.4	69.7	123.7	37.3	86.3	-42.6	-14.1	45.2		
1980 P	1,533.9	166.2	1,367.7	152.1	1,215.7	1,036.8	122.8	179.5	61.3	118.2	40.3	77.9	-42.0	-14.7	56.1		
1978:																	
I	1,196.3	124.0	1,072.3	121.3	951.0	797.2	118.5	150.6	56.9	93.7	34.8	58.9	-21.6	-10.5	35.3		
II	1,260.1	127.3	1,132.9	125.5	1,007.3	830.2	141.1	175.5	68.8	107.4	33.2	74.1	-23.2	-11.2	36.0		
III	1,289.9	131.6	1,158.3	125.5	1,032.9	853.4	142.3	178.6	69.0	109.6	37.5	72.1	-22.6	-13.6	37.1		
IV	1,336.5	135.7	1,200.7	128.6	1,072.1	884.7	148.6	192.6	75.3	117.2	38.6	78.6	-29.8	-14.2	38.9		
1979:																	
I	1,378.7	140.5	1,238.2	130.9	1,107.3	919.9	146.0	195.7	71.2	124.5	38.2	86.3	-35.3	-14.4	41.4		
II	1,399.5	146.0	1,253.5	131.5	1,122.0	939.8	138.6	191.4	68.9	122.5	37.9	84.5	-37.9	-14.8	43.5		
III	1,432.1	150.7	1,281.5	134.8	1,146.7	965.2	134.8	195.5	70.5	125.0	34.9	90.1	-46.5	-14.2	46.7		
IV	1,457.7	152.9	1,304.8	137.3	1,167.5	991.1	127.3	191.1	68.4	122.7	38.2	84.5	-50.8	-13.0	49.1		
1980:																	
I	1,502.1	158.2	1,343.9	141.7	1,202.3	1,017.3	132.6	207.2	74.3	132.9	36.9	96.0	-61.4	-13.1	52.3		
II	1,496.3	163.6	1,332.7	147.7	1,185.0	1,018.0	112.5	158.6	52.0	106.6	41.1	65.5	-31.1	-14.9	54.4		
III	1,537.7	168.6	1,369.1	155.4	1,213.6	1,034.8	121.2	177.9	60.3	117.6	40.8	76.8	-41.7	-15.0	57.6		

¹ Indirect business tax and nontax liability plus business transfer payments less subsidies.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-12.—Output, costs, and profits of nonfinancial corporate business, 1948-80

(Quarterly data at seasonally adjusted annual rates)

Year or quarter	Gross domestic product of nonfinancial corporate business (billions of dollars)		Current-dollar cost and profit per unit of output (dollars) ¹							
	Current dollars	1972 dollars	Total cost and profit ²	Capital consumption allowances with capital consumption adjustment	Indirect business tax, etc. ³	Compensation of employees	Net interest	Corporate profits with inventory valuation and capital consumption adjustments		
								Total	Profits tax liability	Profits after tax ⁴
1948	137.3	229.7	0.598	0.047	0.053	0.382	0.004	0.112	0.051	0.060
1949	133.5	219.9	.607	.053	.057	.388	.004	.104	.042	.062
1950	151.9	247.5	.614	.051	.057	.383	.004	.120	.068	.051
1951	174.5	270.2	.646	.054	.056	.408	.004	.124	.079	.045
1952	182.3	275.2	.663	.057	.061	.430	.004	.110	.065	.045
1953	195.0	292.0	.668	.058	.062	.441	.004	.103	.063	.040
1954	191.9	283.4	.677	.063	.061	.446	.005	.101	.055	.046
1955	216.7	315.1	.688	.061	.061	.439	.005	.122	.064	.057
1956	231.6	324.1	.715	.067	.064	.467	.005	.111	.062	.049
1957	242.3	328.3	.738	.073	.068	.484	.007	.106	.058	.048
1958	236.3	313.4	.754	.079	.073	.497	.009	.097	.052	.045
1959	266.0	347.4	.766	.074	.073	.494	.009	.116	.060	.056
1960	277.0	358.4	.773	.075	.079	.505	.010	.104	.054	.051
1961	285.0	367.2	.776	.075	.082	.504	.011	.104	.053	.051
1962	311.3	399.7	.779	.071	.083	.500	.011	.114	.052	.062
1963	331.8	426.3	.778	.069	.083	.494	.011	.120	.053	.067
1964	358.4	455.6	.787	.068	.084	.497	.012	.127	.053	.074
1965	393.6	495.2	.795	.066	.083	.497	.012	.137	.055	.082
1966	431.5	530.7	.813	.067	.081	.515	.014	.136	.056	.080
1967	454.1	543.0	.836	.072	.084	.538	.016	.127	.051	.076
1968	500.2	578.9	.864	.074	.089	.558	.017	.127	.058	.069
1969	544.1	604.0	.901	.078	.096	.594	.022	.112	.055	.057
1970	563.7	599.6	.940	.087	.106	.631	.028	.088	.045	.043
1971	609.9	626.8	.973	.091	.113	.641	.029	.099	.047	.052
1972	678.0	678.0	1.000	.092	.113	.659	.028	.107	.049	.058
1973	759.4	731.9	1.038	.093	.114	.692	.031	.107	.055	.053
1974	818.9	708.2	1.156	.112	.127	.786	.042	.090	.059	.030
1975	890.0	694.2	1.282	.137	.140	.837	.044	.124	.059	.065
1976	1,001.3	745.5	1.343	.141	.141	.878	.040	.144	.071	.073
1977	1,129.5	799.0	1.414	.146	.144	.924	.042	.158	.074	.084
1978	1,270.7	845.1	1.504	.153	.148	.996	.044	.163	.080	.083
1979	1,417.0	873.3	1.623	.169	.153	1.092	.052	.157	.080	.077
1980 ^p	1,533.9	866.2	1.771	.192	.176	1.197	.065	.142	.071	.071
1978:										
I	1,196.3	821.8	1.456	.151	.148	.970	.043	.144	.069	.075
II	1,260.1	845.8	1.490	.150	.148	.982	.043	.167	.081	.086
III	1,289.9	849.8	1.518	.155	.148	1.004	.044	.168	.081	.086
IV	1,336.5	862.9	1.549	.157	.149	1.025	.045	.172	.087	.085
1979:										
I	1,378.7	874.7	1.576	.161	.150	1.052	.047	.167	.081	.086
II	1,399.5	870.8	1.607	.168	.151	1.079	.050	.159	.079	.080
III	1,432.1	874.3	1.638	.172	.154	1.104	.053	.154	.081	.074
IV	1,457.7	873.4	1.669	.175	.157	1.135	.056	.146	.078	.067
1980:										
I	1,502.1	878.2	1.710	.180	.161	1.158	.060	.151	.085	.066
II	1,496.3	853.2	1.754	.192	.173	1.193	.064	.132	.061	.071
III	1,537.7	860.4	1.787	.196	.181	1.203	.067	.141	.070	.071

¹ Output is measured by gross domestic product of nonfinancial corporate business in 1972 dollars.² This is equal to the deflator for gross domestic product of nonfinancial corporate business with the decimal point shifted two places to the left.³ Indirect business tax and nontax liability plus business transfer payments less subsidies.⁴ With inventory valuation and capital consumption adjustments.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-13.—Personal consumption expenditures, 1929-80

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Personal consumption expenditures	Durable goods ¹			Nondurable goods ¹					Services ¹				
		Total	Motor vehicles and parts	Furniture and household equipment	Total	Food	Clothing and shoes	Gasoline and oil	Fuel oil and coal	Total	Housing ²	Household operation ¹		Transportation
												Total	Electricity and gas	
1929.....	77.3	9.2	3.3	4.7	37.7	19.5	9.4	1.8	1.6	30.3	11.7	4.0	1.2	2.6
1933.....	45.8	3.5	1.1	1.9	22.3	11.5	4.6	1.5	1.2	20.1	8.1	2.8	1.1	1.5
1939.....	67.0	6.7	2.3	3.4	35.1	19.1	7.1	2.2	1.4	25.2	9.4	3.8	1.4	2.0
1940.....	71.0	7.8	2.8	3.8	37.0	20.2	7.5	2.3	1.5	26.2	9.7	4.0	1.5	2.1
1941.....	80.8	9.7	3.5	4.8	42.9	23.4	8.8	2.6	1.7	28.2	10.4	4.3	1.5	2.4
1942.....	88.6	6.9	7	4.6	50.8	28.4	11.0	2.1	1.9	31.0	11.2	4.8	1.6	2.7
1943.....	99.4	6.5	8	3.9	58.6	33.2	13.4	1.3	2.0	34.3	11.8	5.2	1.7	3.4
1944.....	108.2	6.7	8	3.8	64.3	36.7	14.6	1.4	2.0	37.1	12.3	5.9	1.8	3.7
1945.....	119.5	8.0	1.0	4.5	71.9	40.6	16.5	1.8	2.2	39.6	12.8	6.4	1.9	4.0
1946.....	143.8	15.8	4.1	8.4	82.7	47.4	18.2	3.4	2.5	45.3	14.2	6.8	2.1	5.0
1947.....	161.7	20.4	6.6	10.6	90.9	52.3	18.8	4.0	3.0	50.4	16.0	7.5	2.3	5.3
1948.....	174.7	22.9	8.0	11.5	96.6	54.2	20.1	4.8	3.4	55.3	17.9	8.1	2.6	5.8
1949.....	178.1	25.0	10.6	11.3	94.9	52.5	19.3	5.3	3.1	58.2	19.6	8.5	2.9	5.9
1950.....	192.0	30.0	13.7	13.7	98.2	53.9	19.6	5.5	3.4	63.0	21.7	9.5	3.3	6.2
1951.....	207.1	29.8	12.2	14.0	108.8	60.4	21.2	6.1	3.5	68.5	24.3	10.4	3.7	6.7
1952.....	217.1	29.1	11.3	14.0	113.9	63.4	21.9	6.8	3.4	74.0	27.0	11.1	4.1	7.1
1953.....	229.7	32.5	13.9	14.6	116.5	64.4	22.1	7.4	3.4	80.6	29.8	12.0	4.5	7.8
1954.....	235.8	31.8	13.0	14.6	118.0	65.4	22.1	7.8	3.5	86.1	32.2	12.6	5.0	7.9
1955.....	253.7	38.6	17.8	16.2	122.9	67.2	23.1	8.6	3.8	92.1	34.3	14.0	5.5	8.2
1956.....	266.0	37.9	15.8	17.1	128.9	69.9	24.1	9.4	3.9	99.2	36.7	15.2	6.1	8.6
1957.....	280.4	39.3	17.2	16.9	135.2	73.6	24.3	10.2	4.1	105.9	39.3	16.2	6.5	9.0
1958.....	289.5	36.8	14.8	16.6	139.8	76.4	24.7	10.6	4.2	112.8	42.0	17.3	7.1	9.3
1959.....	310.8	42.4	18.9	17.8	146.4	79.1	26.1	11.3	4.0	121.9	45.0	18.5	7.6	10.1
1960.....	324.9	43.1	19.7	17.7	151.1	81.1	26.7	12.0	3.8	130.7	48.1	20.1	8.3	10.7
1961.....	335.0	41.6	17.8	17.9	155.3	83.2	27.4	12.0	3.7	138.1	51.2	21.0	8.8	11.2
1962.....	355.2	46.7	21.5	18.9	161.6	85.5	28.7	12.6	3.7	147.0	54.7	22.2	9.4	11.7
1963.....	374.6	51.4	24.4	20.3	167.1	87.8	29.5	12.9	4.0	156.1	58.0	23.4	9.9	12.2
1964.....	400.5	56.4	26.1	22.8	176.9	92.7	31.9	13.5	4.1	167.1	61.4	24.8	10.4	12.8
1965.....	430.4	63.0	30.0	24.7	188.6	98.9	33.5	14.7	4.4	178.7	65.5	26.3	10.9	13.7
1966.....	465.1	68.0	30.4	27.7	204.7	106.6	36.6	16.0	4.7	192.4	69.5	28.0	11.5	15.0
1967.....	490.3	70.1	30.1	29.5	212.6	109.6	38.2	17.0	4.8	207.6	74.1	30.0	12.2	16.2
1968.....	536.9	80.5	36.3	32.3	230.6	118.7	42.1	18.6	4.7	225.8	79.8	32.2	13.1	17.6
1969.....	581.8	85.7	38.7	34.1	247.8	127.5	45.5	20.7	4.5	248.2	87.0	35.0	14.2	19.5
1970.....	621.7	85.2	36.2	35.2	265.7	138.9	46.8	22.4	4.4	270.8	93.9	37.7	15.4	22.0
1971.....	672.2	97.2	45.4	37.2	278.8	144.2	50.6	23.9	4.5	296.2	102.7	41.0	17.0	25.1
1972.....	737.1	111.1	52.4	41.7	300.6	154.9	55.4	25.4	5.0	325.3	112.5	45.2	18.8	27.5
1973.....	812.0	123.3	57.1	47.1	333.4	172.1	61.4	28.6	6.2	355.2	123.8	49.6	20.5	28.8
1974.....	888.1	121.5	50.4	50.6	373.4	193.7	64.8	36.6	7.7	393.2	137.4	55.2	24.0	30.9
1975.....	976.4	132.2	55.8	53.5	407.3	213.6	69.6	40.4	8.2	437.0	149.8	63.3	29.2	33.2
1976.....	1,084.3	156.8	72.6	59.1	441.7	230.6	75.3	44.0	9.8	485.7	166.5	71.6	32.9	38.6
1977.....	1,205.5	178.8	85.0	65.8	479.0	250.3	82.1	48.2	10.6	547.7	186.8	80.8	38.2	45.3
1978.....	1,348.7	199.3	94.3	72.9	529.8	276.4	91.9	52.7	11.7	619.6	213.1	89.5	42.4	51.0
1979.....	1,510.9	212.3	95.5	81.1	602.2	312.1	98.9	68.4	16.0	696.3	241.9	98.7	47.3	57.2
1980 ^a	1,670.1	210.2	89.0	84.1	674.4	345.0	104.7	89.0	20.0	785.5	272.4	111.7	55.8	64.1
1978:														
I.....	1,278.3	185.0	86.8	68.2	504.0	264.1	86.3	49.8	11.9	589.3	201.8	87.2	41.8	49.0
II.....	1,330.1	200.1	96.4	72.2	520.4	271.4	91.0	51.0	11.8	609.5	209.2	87.8	41.4	50.6
III.....	1,369.9	202.0	95.5	73.9	536.3	279.5	93.4	53.3	11.3	631.6	216.8	90.8	42.9	51.6
IV.....	1,416.6	210.2	98.5	77.3	558.3	290.4	96.9	56.8	11.9	648.1	224.6	92.3	43.5	52.7
1979:														
I.....	1,454.1	212.5	100.1	78.0	571.8	299.1	95.8	60.6	13.1	669.9	231.4	96.1	46.4	54.4
II.....	1,478.0	207.4	91.7	80.1	586.4	306.0	97.0	63.2	14.9	684.2	238.1	96.4	45.9	56.5
III.....	1,529.1	213.3	94.7	82.4	611.5	314.3	100.3	72.1	17.9	704.3	244.9	99.5	47.3	58.2
IV.....	1,582.3	216.1	95.4	83.8	639.2	329.0	102.5	77.6	18.1	727.0	253.0	102.7	49.8	59.9
1980:														
I.....	1,631.0	220.9	100.6	83.6	661.1	336.2	102.2	89.4	18.8	749.0	259.8	104.2	50.0	61.4
II.....	1,626.8	194.4	77.5	81.3	664.0	338.4	102.3	90.9	19.2	768.4	267.3	109.3	54.5	61.6
III.....	1,682.2	208.8	87.0	84.6	674.2	347.7	105.3	85.3	20.7	799.2	275.7	116.1	59.3	65.8

¹ Total includes "other" category, not shown separately.² Includes imputed rental value of owner-occupied housing.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-14.—Gross private domestic investment, 1929–80

(Billions of dollars; quarterly data at seasonally adjusted annual rates)

Year or quarter	Gross private domestic investment	Fixed investment								Change in business inventories	
		Total	Nonresidential			Residential				Total	Non-farm
			Total	Structures	Producers' durable equipment	Total	Non-farm structures	Farm structures	Producers' durable equipment		
1929	16.2	14.5	10.6	5.1	5.5	3.9	3.6	0.2	0.1	1.7	1.8
1933	1.4	3.0	2.4	1.0	1.4	.6	.5	.0	.0	-1.6	-1.4
1939	9.3	8.8	5.9	2.0	3.9	2.9	2.7	.1	.1	.4	.3
1940	13.1	10.9	7.5	2.3	5.2	3.4	3.2	.2	.1	2.2	1.9
1941	17.9	13.4	9.4	3.0	6.4	4.0	3.6	.4	.1	4.5	4.0
1942	9.9	8.1	6.0	1.9	4.1	2.2	1.9	.3	.1	1.8	.7
1943	5.8	6.4	5.0	1.4	3.7	1.4	1.2	.2	.0	-.6	-.6
1944	7.2	8.1	6.9	1.9	5.0	1.3	1.1	.1	.0	-1.0	-.6
1945	10.6	11.7	10.1	2.8	7.3	1.5	1.4	.1	.0	-1.0	-.6
1946	30.7	24.3	16.9	6.9	9.9	7.4	6.7	.7	.5	6.4	6.4
1947	34.0	34.4	23.0	7.7	15.3	11.4	10.4	.9	.3	4.5	1.3
1948	45.9	41.1	26.3	9.0	17.3	14.9	13.7	.9	.3	4.7	3.0
1949	35.3	38.4	24.4	8.7	15.7	13.9	12.8	.8	.3	-3.1	-2.2
1950	53.8	47.0	27.3	9.5	17.8	19.8	18.6	.8	.4	6.8	6.0
1951	59.2	48.9	31.3	11.4	19.9	17.6	16.4	.8	.4	10.3	9.1
1952	52.1	49.0	31.3	11.6	19.7	17.7	16.5	.8	.4	3.1	2.1
1953	53.3	52.9	34.5	12.9	21.5	18.4	17.3	.8	.4	4.4	1.1
1954	52.7	54.3	34.2	13.4	20.8	20.1	19.0	.7	.4	-1.5	-2.1
1955	68.4	62.4	38.5	14.6	23.9	23.9	22.8	.6	.4	6.0	5.5
1956	71.0	66.3	44.0	17.7	26.3	22.3	21.2	.7	.5	4.7	5.1
1957	69.2	67.9	47.0	18.4	28.6	20.9	19.7	.7	.5	1.3	.8
1958	61.9	63.4	42.0	17.2	24.9	21.4	20.3	.7	.5	-1.5	-2.3
1959	78.1	72.5	45.9	17.6	28.3	26.6	25.3	.7	.6	5.7	5.7
1960	75.9	72.9	48.5	18.8	29.7	24.5	23.3	.6	.5	3.0	2.7
1961	74.8	72.5	48.0	19.1	28.9	24.5	23.2	.7	.5	2.3	2.0
1962	85.4	79.2	52.2	20.1	32.1	27.0	25.8	.6	.5	6.3	5.5
1963	90.9	84.9	54.8	20.5	34.4	30.1	28.9	.7	.6	6.0	5.2
1964	97.4	91.7	61.0	22.4	38.7	30.7	29.4	.7	.6	5.6	6.2
1965	113.5	103.7	72.7	27.0	45.8	30.9	29.6	.6	.7	9.9	8.9
1966	125.7	111.6	83.1	30.1	53.0	28.5	27.1	.7	.7	14.1	14.3
1967	122.8	112.5	83.9	30.3	53.7	28.6	27.2	.7	.7	10.3	9.6
1968	133.3	125.4	90.7	32.4	58.2	34.8	33.3	.6	.9	7.9	7.8
1969	149.3	139.5	101.3	36.7	64.6	38.2	36.5	.7	1.0	9.8	9.7
1970	144.2	141.0	103.9	38.7	65.2	37.1	35.4	.6	1.1	3.2	3.1
1971	165.4	158.8	107.9	40.5	67.4	50.9	48.9	.7	1.3	7.7	6.4
1972	195.0	184.8	121.0	44.1	76.9	63.8	61.5	.7	1.5	10.2	9.6
1973	229.8	211.3	143.3	51.0	92.3	68.0	65.6	.7	1.7	18.5	15.2
1974	228.7	214.5	156.6	55.9	100.7	57.9	54.8	1.3	1.8	14.1	16.0
1975	206.1	213.0	157.7	55.4	102.3	55.3	52.4	1.0	1.9	-6.9	-10.5
1976	257.9	246.0	174.1	58.8	115.3	72.0	68.8	1.1	2.1	11.8	13.9
1977	322.3	301.3	205.5	64.6	140.9	95.8	91.9	1.5	2.3	21.0	20.2
1978	375.3	353.2	242.0	78.7	163.3	111.2	106.9	1.8	2.6	22.2	21.8
1979	415.8	398.3	279.7	96.3	183.4	118.6	113.9	1.8	2.9	17.5	13.4
1980 ^p	395.1	399.0	295.0	108.1	186.9	104.0	99.1	1.9	3.0	-3.9	-2.6
1978:											
I	350.7	325.8	222.6	70.3	152.3	103.2	98.9	1.8	2.4	24.9	24.6
II	377.7	350.7	239.4	77.3	162.1	111.3	107.4	1.4	2.5	27.0	26.7
III	380.4	361.3	247.1	81.3	165.8	114.2	109.6	2.0	2.6	19.1	18.6
IV	392.6	374.9	258.7	85.7	173.0	116.2	111.6	1.9	2.7	17.7	17.2
1979:											
I	408.3	384.0	267.3	87.3	179.9	116.7	112.5	1.6	2.7	24.3	20.8
II	423.2	390.1	272.9	93.2	179.7	117.2	112.9	1.6	2.8	33.1	29.2
III	421.7	408.3	288.5	99.6	189.0	119.8	114.9	2.0	2.9	13.3	7.8
IV	410.0	410.8	290.2	105.1	185.1	120.6	115.4	2.3	3.0	-.8	-4.4
1980:											
I	415.6	413.1	297.8	108.2	189.7	115.2	110.1	2.2	3.0	2.5	1.5
II	390.9	383.5	289.8	108.4	181.4	93.6	88.9	1.8	2.9	7.4	6.1
III	377.1	393.2	294.0	107.3	186.8	99.2	94.5	1.7	3.0	-16.0	-12.3

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-15.—Inventories and final sales of business, 1946-80

[Billions of dollars, except as noted; seasonally adjusted]

Year and quarter	Inventories ¹							Final sales ²	Inventory—final sales ratio	
	Total	Farm	Nonfarm						Total	Non-farm ³
			Total	Manufacturing	Wholesale trade	Retail trade	Other			
Fourth quarter:										
1946.....	72.0	22.7	49.3	26.7	10.1	11.4	3.5	16.0	4.500	3.081
1947.....	82.6	25.1	57.5	29.3	10.5	13.1	4.6	18.3	4.514	3.143
1948.....	87.2	22.9	64.3	32.5	11.7	15.1	5.0	19.6	4.438	3.274
1949.....	78.7	19.8	59.0	28.9	11.8	14.0	4.3	19.5	4.028	3.016
1950.....	98.0	26.1	71.9	35.2	13.8	17.5	5.4	21.7	4.525	3.322
1951.....	110.5	28.3	82.2	43.4	14.6	18.0	6.1	24.6	4.485	3.336
1952.....	109.2	26.0	83.1	44.4	14.8	17.7	6.2	26.1	4.181	3.183
1953.....	110.1	24.6	85.5	46.4	15.0	18.3	5.8	27.2	4.053	3.148
1954.....	107.6	23.8	83.9	44.3	15.3	18.5	5.9	27.5	3.913	3.050
1955.....	114.8	22.5	92.2	48.8	16.6	20.9	6.0	29.7	3.863	3.105
1956.....	124.0	22.9	101.0	54.5	17.9	21.7	6.9	31.4	3.945	3.216
1957.....	127.6	24.3	103.3	54.8	18.2	22.9	7.3	32.7	3.898	3.155
1958.....	127.3	25.6	101.7	53.2	18.3	22.9	7.3	33.7	3.773	3.013
1959.....	132.0	24.4	107.6	55.7	20.0	23.9	8.0	35.6	3.709	3.025
1960.....	136.0	25.6	110.4	56.6	20.4	25.3	8.1	36.9	3.687	2.993
1961.....	137.9	25.9	112.1	57.7	20.9	24.9	8.7	38.8	3.555	2.889
1962.....	144.6	27.3	117.3	60.9	21.5	26.3	8.6	41.1	3.518	2.853
1963.....	150.4	27.6	122.7	62.9	23.1	27.6	9.2	43.7	3.438	2.806
1964.....	156.2	26.5	129.7	66.4	24.4	29.0	9.9	46.2	3.382	2.809
1965.....	170.5	29.9	140.6	71.5	26.3	31.9	10.9	51.0	3.342	2.756
1966.....	187.4	29.6	157.8	81.7	29.9	34.6	11.6	54.1	3.465	2.918
1967.....	199.4	29.5	169.9	88.7	32.4	35.3	13.5	57.6	3.463	2.950
1968.....	213.5	30.6	182.9	95.2	34.3	39.0	14.4	63.3	3.371	2.888
1969.....	234.6	33.3	201.3	104.8	37.7	42.8	16.0	67.4	3.480	2.986
1970.....	244.0	32.3	211.6	108.4	41.7	44.3	17.3	70.8	3.446	2.990
1971.....	260.8	36.7	224.1	109.9	44.9	50.5	18.8	77.2	3.376	2.901
1972.....	288.7	45.6	243.1	116.8	49.4	55.7	21.2	85.8	3.366	2.834
1973.....	357.7	66.6	291.2	141.1	60.2	64.8	25.0	94.5	3.787	3.082
1974.....	434.4	62.4	372.0	189.6	76.9	74.1	31.3	102.0	4.257	3.646
1975.....	439.4	64.5	374.9	189.8	77.3	74.6	33.3	113.6	3.867	3.300
1976.....	473.6	60.6	413.0	207.5	86.9	82.9	35.7	124.1	3.815	3.327
1977.....	520.9	61.4	459.5	225.6	98.5	93.7	41.6	139.2	3.743	3.301
1978.....	600.5	76.0	524.5	254.7	114.2	108.4	47.2	159.3	3.770	3.292
1979.....	710.1	84.3	625.9	311.2	134.6	122.6	57.5	176.2	4.030	3.551
1978:										
I.....	539.9	65.6	474.2	232.1	103.3	97.3	41.6	140.9	3.831	3.365
II.....	560.2	69.2	491.0	239.1	106.3	101.2	44.4	148.6	3.770	3.304
III.....	578.3	72.0	506.2	246.4	109.2	104.8	45.8	153.6	3.765	3.296
IV.....	600.5	76.0	524.5	254.7	114.2	108.4	47.2	159.3	3.770	3.292
1979:										
I.....	626.2	79.4	546.7	267.6	118.8	111.3	49.0	163.6	3.828	3.342
II.....	654.5	80.5	574.0	281.9	123.9	116.3	51.9	165.1	3.964	3.477
III.....	681.9	83.4	598.5	295.0	129.4	119.7	54.5	171.4	3.979	3.492
IV.....	710.1	84.3	625.9	311.2	134.6	122.6	57.5	176.2	4.030	3.551
1980:										
I.....	724.5	77.8	646.6	325.0	138.5	122.8	60.3	181.2	3.998	3.568
II.....	740.4	81.8	658.5	331.2	142.0	124.0	61.3	179.9	4.115	3.660
III.....	765.8	92.6	673.2	335.3	146.3	127.3	64.3	187.2	4.092	3.597

¹ End of quarter.² Monthly rates.³ Ratio based on total final sales, which include a small amount of final sales by farms.

Note.—The industry classification of inventories is on an establishment basis and is based on the 1972 Standard Industrial Classification (SIC) beginning in 1948 and on the 1942 SIC prior to 1948.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-16.—Inventories and final sales of business in 1972 dollars, 1947-80

(Billions of 1972 dollars, except as noted; seasonally adjusted)

Year and quarter	Inventories ¹							Final sales ²	Inventory—final sales ratio	
	Total	Farm	Nonfarm						Total	Non-farm ³
			Total	Manufacturing	Wholesale trade	Retail trade	Other			
Fourth quarter:										
1947.....	116.1	25.7	90.5	47.4	16.0	18.3	8.7	33.2	3.500	2.727
1948.....	121.6	26.7	94.8	48.8	17.2	20.3	8.6	34.4	3.535	2.758
1949.....	117.2	26.2	91.0	46.2	17.2	19.8	7.8	34.6	3.382	2.626
1950.....	127.7	27.5	100.2	49.3	19.2	23.0	8.7	36.9	3.462	2.716
1951.....	141.4	29.1	112.3	60.0	19.7	23.0	9.5	39.8	3.553	2.821
1952.....	145.7	30.4	115.4	62.7	20.1	23.0	9.6	41.6	3.505	2.775
1953.....	147.2	30.2	117.1	64.5	20.3	23.6	8.7	43.0	3.423	2.722
1954.....	145.0	31.1	114.0	60.9	20.6	23.7	8.8	43.1	3.364	2.643
1955.....	152.8	31.5	121.2	64.3	22.1	26.5	8.4	45.6	3.348	2.657
1956.....	158.6	30.7	127.8	69.1	22.8	26.8	9.2	46.5	3.413	2.751
1957.....	160.1	31.4	128.7	68.7	22.5	27.8	9.8	47.1	3.399	2.733
1958.....	158.3	32.4	125.9	66.1	22.5	27.5	9.8	48.1	3.292	2.618
1959.....	165.3	32.4	132.9	69.1	24.6	28.7	10.5	49.7	3.329	2.676
1960.....	168.8	32.8	136.1	69.9	25.1	30.3	10.7	50.7	3.329	2.683
1961.....	171.8	33.2	138.6	71.7	25.7	29.8	11.4	53.1	3.237	2.611
1962.....	179.7	34.5	145.2	75.6	26.6	31.6	11.4	55.3	3.248	2.625
1963.....	187.2	35.7	151.5	78.2	28.4	33.0	12.0	58.3	3.212	2.600
1964.....	194.3	35.1	159.2	82.0	29.9	34.5	12.8	60.9	3.190	2.604
1965.....	206.1	36.2	169.9	87.0	31.6	37.4	13.8	66.1	3.120	2.571
1966.....	222.9	36.0	186.8	97.2	35.3	40.0	14.3	67.5	3.301	2.767
1967.....	235.1	36.8	198.3	104.1	37.8	40.0	16.3	70.1	3.356	2.830
1968.....	244.1	37.0	207.0	108.4	38.9	43.0	16.8	73.8	3.307	2.805
1969.....	255.1	37.3	217.8	112.8	41.2	45.9	17.9	74.7	3.415	2.915
1970.....	258.9	37.7	221.2	112.9	44.0	46.1	18.2	75.2	3.442	2.940
1971.....	267.0	39.2	227.8	111.8	45.9	51.2	19.0	78.9	3.384	2.887
1972.....	277.2	39.8	237.4	114.4	47.9	54.6	20.5	84.7	3.274	2.804
1973.....	294.4	42.1	252.3	121.8	50.4	58.8	21.4	87.3	3.373	2.891
1974.....	306.0	41.8	264.2	130.9	54.1	58.3	20.9	85.1	3.593	3.103
1975.....	299.2	43.0	256.3	127.1	52.2	55.8	21.1	88.3	3.388	2.901
1976.....	307.0	41.1	265.9	130.9	55.5	58.8	20.8	92.4	3.321	2.877
1977.....	319.3	41.1	278.3	133.9	59.5	63.0	21.9	97.9	3.261	2.841
1978.....	333.3	41.1	292.2	139.1	63.2	66.8	23.0	103.1	3.233	2.834
1979.....	343.5	43.5	300.0	145.9	64.2	66.8	23.1	105.4	3.260	2.847
1978:										
I.....	323.8	41.1	282.7	135.5	61.2	64.2	21.7	97.6	3.316	2.895
II.....	327.8	41.1	286.7	136.9	61.8	65.2	22.7	100.4	3.265	2.855
III.....	330.7	41.1	289.6	138.2	62.1	66.3	23.0	101.7	3.250	2.846
IV.....	333.3	41.1	292.2	139.1	63.2	66.8	23.0	103.1	3.233	2.834
1979:										
I.....	337.2	41.6	295.5	141.8	63.9	66.8	23.0	103.6	3.254	2.852
II.....	341.7	42.2	299.5	143.9	64.1	68.4	23.2	102.7	3.328	2.917
III.....	343.7	43.0	300.7	145.0	64.5	68.1	23.1	104.4	3.293	2.881
IV.....	343.5	43.5	300.0	145.9	64.2	66.8	23.1	105.4	3.260	2.847
1980:										
I.....	343.3	43.6	299.6	147.3	64.1	64.9	23.4	106.1	3.236	2.825
II.....	343.6	43.8	299.8	147.2	64.5	64.7	23.4	102.8	3.341	2.915
III.....	342.3	43.4	299.0	145.9	64.7	65.1	23.4	103.9	3.294	2.877

¹ End of quarter.² Monthly rates.³ Ratio based on total final sales, which include a small amount of final sales by farms.

Note.—The industry classification of inventories is on an establishment basis and is based on the 1972 Standard Industrial Classification (SIC) beginning in 1948 and on the 1942 SIC prior to 1948.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-17.—*Relation of gross national product and national income, 1929-80*

(Billions of dollars; quarterly data at seasonally adjusted annual rates)

Year or quarter	Gross national product	Less: Capital consumption allowances with capital consumption adjustment	Equals: Net national product	Plus: Subsidies less current surplus of government enterprises	Less:			Equals: National income
					Indirect business tax and nontax liability	Business transfer payments	Statistical discrepancy	
1929.....	103.4	9.7	93.7	-0.2	7.1	0.6	1.1	84.8
1933.....	55.8	7.4	48.4	-0	7.1	.7	.7	39.9
1939.....	90.9	8.7	82.2	.4	9.4	.5	1.4	71.4
1940.....	100.0	9.1	91.0	.4	10.1	.4	1.1	79.7
1941.....	125.0	10.0	115.0	.1	11.3	.5	.6	102.7
1942.....	158.5	11.2	147.3	.1	11.8	.5	—	135.9
1943.....	192.1	11.5	180.7	.1	12.8	.5	-1.8	169.3
1944.....	210.6	11.7	198.9	.6	14.2	.5	2.7	182.1
1945.....	212.4	12.2	200.2	.7	15.5	.5	4.1	180.7
1946.....	209.8	14.0	195.8	.9	17.1	.5	.5	178.6
1947.....	233.1	17.3	215.7	—	18.4	.6	1.5	194.9
1948.....	259.5	20.2	239.3	—1	20.1	.7	-1.6	219.9
1949.....	258.3	21.8	236.5	—3	21.3	.8	.6	213.6
1950.....	286.5	23.5	263.0	.1	23.4	.8	1.3	237.6
1951.....	330.8	27.2	303.6	—1	25.3	.9	3.2	274.1
1952.....	348.0	29.3	318.7	—3	27.7	1.0	1.7	287.9
1953.....	366.8	31.0	335.8	—5	29.7	1.2	2.3	302.1
1954.....	366.8	32.7	334.1	—3	29.6	1.1	2.0	301.1
1955.....	400.0	34.8	365.3	—0	32.2	1.2	1.3	330.5
1956.....	421.7	38.7	383.0	.7	35.1	1.4	-2.1	349.4
1957.....	444.0	41.7	402.3	.7	37.5	1.5	-1.2	365.2
1958.....	449.7	43.5	406.2	1.1	38.7	1.6	.2	366.9
1959.....	487.9	44.9	443.0	.1	41.8	1.8	-1.3	400.8
1960.....	506.5	46.3	460.2	.4	45.4	2.0	-2.4	415.7
1961.....	524.6	47.5	477.0	1.7	48.0	2.0	—	428.8
1962.....	565.0	49.0	516.1	1.8	51.6	2.1	2.1	462.0
1963.....	596.7	50.6	546.1	1.1	54.6	2.4	1.7	488.5
1964.....	637.7	52.9	584.8	1.7	58.8	2.7	.1	524.9
1965.....	691.1	56.0	635.0	1.6	62.6	2.8	-1.2	572.4
1966.....	756.0	60.7	695.3	2.5	65.3	3.0	1.4	628.1
1967.....	799.6	65.9	733.7	1.6	70.2	3.1	—	662.2
1968.....	873.4	72.1	801.3	1.4	78.9	3.4	-2.1	722.5
1969.....	944.0	80.0	864.0	1.9	86.6	3.9	-3.9	779.3
1970.....	992.7	88.1	904.7	2.9	94.3	4.1	-1.5	810.7
1971.....	1,077.6	96.5	981.1	2.6	103.7	4.4	4.1	871.5
1972.....	1,185.9	106.4	1,079.5	3.8	111.5	4.9	3.3	963.6
1973.....	1,326.4	116.5	1,209.9	3.4	120.9	5.5	.8	1,086.2
1974.....	1,434.2	136.0	1,298.2	1.1	129.1	5.8	3.7	1,160.7
1975.....	1,549.2	159.3	1,389.9	2.4	140.1	7.4	5.5	1,239.4
1976.....	1,718.0	175.0	1,543.0	1.0	151.7	7.9	5.1	1,379.2
1977.....	1,918.0	196.0	1,722.0	3.1	166.0	8.2	4.4	1,546.5
1978.....	2,156.1	221.2	1,934.9	3.6	178.1	8.7	6.4	1,745.4
1979.....	2,413.9	253.6	2,160.3	3.1	188.4	9.4	2.2	1,963.3
1980 ^a	2,627.4	287.8	2,339.6	4.7	211.7	10.5	1.7	2,120.5
1978:								
I.....	2,032.4	210.0	1,822.4	4.5	174.3	8.5	—	1,644.6
II.....	2,129.6	217.1	1,912.5	3.7	179.6	8.6	7.3	1,720.7
III.....	2,190.5	224.9	1,965.6	1.8	177.0	8.7	10.0	1,771.7
IV.....	2,271.9	232.7	2,039.2	4.4	181.4	8.9	8.7	1,844.6
1979:								
I.....	2,340.6	240.1	2,100.5	2.4	184.5	9.1	5.8	1,903.6
II.....	2,374.6	249.8	2,124.8	3.0	185.8	9.3	.7	1,932.0
III.....	2,444.1	259.6	2,184.6	4.0	190.0	9.6	2.8	1,986.2
IV.....	2,496.3	265.1	2,231.2	2.7	193.5	9.8	—	2,031.3
1980:								
I.....	2,571.7	274.6	2,297.1	3.1	198.9	10.1	2.8	2,088.5
II.....	2,564.8	283.7	2,281.1	3.7	206.3	10.3	-1.9	2,070.0
III.....	2,637.3	291.8	2,345.5	6.3	215.8	10.6	3.0	2,122.4

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-18.—*Relation of national income and personal income, 1929-80*

(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	Government transfer payments to persons	Personal interest income	Personal dividend income	Business transfer payments	
1929.....	84.8	9.0	4.7	0.2	0.0	0.9	6.9	5.8	0.6	85.0
1933.....	39.9	-1.7	4.1	.3	.0	1.5	5.5	2.0	.7	47.0
1939.....	71.4	5.3	3.6	2.1	.0	2.5	5.4	3.8	.5	72.4
1940.....	79.7	8.6	3.3	2.3	.0	2.7	5.3	4.0	.4	77.9
1941.....	102.7	14.1	3.3	2.8	.0	2.6	5.3	4.4	.5	95.4
1942.....	135.9	19.3	3.1	3.5	.0	2.7	5.2	4.3	.5	122.6
1943.....	169.3	23.5	2.7	4.5	.2	2.5	5.1	4.4	.5	150.8
1944.....	182.1	23.6	2.4	5.2	-.2	3.1	5.2	4.6	.5	164.5
1945.....	180.7	19.0	2.2	6.1	.0	5.6	5.9	4.6	.5	170.0
1946.....	178.6	16.6	1.8	6.1	.0	10.8	6.6	5.6	.5	177.6
1947.....	194.9	22.3	2.3	5.8	.0	11.2	7.6	6.3	.6	190.1
1948.....	219.9	29.4	2.4	5.4	.0	10.6	8.1	7.0	.7	209.0
1949.....	213.6	27.1	2.7	5.9	.0	11.7	8.7	7.2	.8	206.4
1950.....	237.6	33.9	3.0	7.1	.0	14.4	9.7	8.8	.8	227.2
1951.....	274.1	38.7	3.5	8.5	.1	11.6	10.5	8.5	.9	254.9
1952.....	287.9	36.1	4.0	9.0	.0	12.1	11.2	8.5	1.0	271.8
1953.....	302.1	36.3	4.4	9.1	-.1	12.9	12.5	8.8	1.2	287.7
1954.....	301.1	35.2	5.3	10.1	.0	15.1	13.7	9.1	1.1	289.6
1955.....	330.5	45.5	5.9	11.5	.0	16.2	14.9	10.3	1.2	310.3
1956.....	349.4	43.7	6.6	12.9	.0	17.3	16.7	11.1	1.4	332.6
1957.....	365.2	43.3	7.9	14.9	.0	20.1	18.8	11.5	1.5	351.0
1958.....	386.9	38.5	9.6	15.2	.0	24.3	20.3	11.3	1.6	361.1
1959.....	400.8	49.6	10.3	18.0	.0	25.2	22.5	12.2	1.8	384.4
1960.....	415.7	47.6	11.4	21.1	.0	27.0	25.0	12.9	2.0	402.3
1961.....	428.8	48.6	13.0	21.9	.0	30.8	26.4	13.3	2.0	417.8
1962.....	462.0	56.6	14.7	24.3	.0	31.6	29.0	14.4	2.1	443.6
1963.....	488.5	62.1	16.4	27.3	.0	33.4	32.2	15.5	2.4	466.2
1964.....	524.9	69.2	18.3	28.7	.0	34.8	35.6	17.3	2.7	499.2
1965.....	572.4	80.0	21.0	30.0	.0	37.6	39.7	19.1	2.8	540.7
1966.....	628.1	85.1	24.4	38.8	.0	41.6	44.4	19.4	3.0	588.2
1967.....	662.2	82.4	27.6	43.4	.0	49.5	48.3	20.2	3.1	630.0
1968.....	722.5	89.1	30.0	47.9	.0	56.4	53.4	21.9	3.4	690.6
1969.....	779.3	85.1	34.8	55.0	.0	62.8	61.1	22.4	3.9	754.7
1970.....	810.7	71.4	41.4	58.6	.0	76.1	69.4	22.2	4.1	811.1
1971.....	871.5	83.2	46.5	64.6	.6	90.0	74.8	22.6	4.4	868.4
1972.....	963.6	96.6	51.2	74.2	.0	99.8	80.9	24.1	4.9	951.4
1973.....	1,086.2	108.3	60.2	92.4	-.1	114.0	93.9	26.5	5.1	1,065.2
1974.....	1,160.7	110.5	76.1	104.3	-.5	135.4	112.4	29.1	5.8	1,168.6
1975.....	1,239.4	110.5	84.5	110.9	.0	170.9	123.2	28.9	7.4	1,265.0
1976.....	1,379.2	138.1	87.2	126.0	.0	186.4	132.5	36.5	7.9	1,391.2
1977.....	1,546.5	164.7	100.9	140.6	.0	199.3	151.6	38.7	8.2	1,538.0
1978.....	1,745.4	185.5	115.8	161.8	.2	214.6	173.2	43.1	8.7	1,721.8
1979.....	1,963.3	196.8	143.4	187.1	-.2	239.9	209.6	48.6	9.4	1,943.8
1980 P.....	2,120.5	181.7	179.8	203.7	.0	284.0	256.3	54.4	10.5	2,160.5
1978:										
I.....	1,644.6	163.6	107.3	155.3	.0	208.5	161.7	40.8	8.5	1,637.9
II.....	1,720.7	185.2	112.3	159.9	.0	209.7	168.5	42.0	8.6	1,692.1
III.....	1,771.7	190.5	117.8	163.4	.5	218.7	176.9	43.9	8.7	1,747.7
IV.....	1,844.6	202.7	125.7	168.5	.4	221.6	185.6	45.8	8.9	1,809.3
1979:										
I.....	1,903.6	201.9	133.4	182.3	.1	226.3	195.8	47.5	9.1	1,864.6
II.....	1,932.0	196.6	136.9	185.3	-.9	232.0	202.6	48.3	9.3	1,906.3
III.....	1,986.2	199.5	146.8	188.5	-.1	248.3	214.3	48.6	9.6	1,972.3
IV.....	2,031.3	189.4	156.5	192.2	.2	253.3	225.7	50.1	9.8	2,032.0
1980:										
I.....	2,088.5	200.2	165.4	198.8	-.2	261.6	239.9	52.4	10.1	2,088.2
II.....	2,070.0	169.3	175.3	199.5	.0	270.3	253.6	54.2	10.3	2,114.5
III.....	2,122.4	177.9	185.3	204.1	.5	300.1	261.8	55.1	10.6	2,182.1

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-19.—National income by type of income, 1929-80

(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	Wages and salaries	Supplements to wages and salaries ²	Total	Farm			Nonfarm			
						Total	Proprietors' income ³	Capital consumption adjustment	Total	Proprietors' income ⁴	Inventory valuation adjustment	Capital consumption adjustment
1929	84.8	51.1	50.5	0.6	15.0	6.1	6.3	-0.2	8.9	8.8	0.1	-0.1
1933	39.9	29.5	29.0	.5	5.9	2.5	2.6	.0	3.3	3.9	-.5	.0
1939	71.4	48.1	46.0	2.1	11.8	4.4	4.5	-.1	7.4	7.6	-.2	.0
1940	79.7	52.1	49.9	2.3	13.0	4.4	4.5	-.1	8.6	8.6	.0	.0
1941	102.7	64.8	62.1	2.7	17.5	6.4	6.5	-.2	11.1	11.7	-.6	.0
1942	135.9	85.3	82.1	3.2	24.2	10.1	10.3	-.2	14.1	14.4	-.4	.1
1943	169.3	109.5	105.8	3.8	29.1	12.0	12.2	-.2	17.1	17.1	-.2	.2
1944	182.1	121.2	116.7	4.5	30.4	12.0	12.2	-.3	18.4	18.3	-.1	.2
1945	180.7	123.1	117.5	5.6	31.8	12.4	12.7	-.3	19.4	19.3	-.1	.2
1946	178.6	118.1	112.0	6.0	36.7	14.9	15.2	-.3	21.8	23.3	-1.7	.2
1947	194.9	129.2	123.1	6.1	35.9	15.1	15.7	-.5	20.8	21.8	-1.5	.5
1948	219.9	141.4	135.5	5.9	40.9	17.6	18.2	-.6	23.3	23.1	-.4	.6
1949	213.6	141.3	134.7	6.6	36.4	12.8	13.5	-.7	23.6	22.2	.5	.9
1950	237.6	154.8	147.0	7.8	38.7	13.7	14.4	-.7	25.0	25.1	-1.1	1.0
1951	274.1	181.0	171.3	9.7	43.2	16.1	16.9	-.8	27.2	26.4	-.3	1.0
1952	287.9	195.7	185.3	10.4	43.4	15.1	16.0	-.8	28.2	26.9	.2	1.1
1953	302.1	209.6	198.5	11.0	41.8	13.1	13.9	-.8	28.6	27.6	-.2	1.2
1954	301.1	208.4	196.8	11.6	41.2	12.5	13.3	-.8	28.7	27.6	.0	1.2
1955	330.5	224.9	211.7	13.2	42.9	11.5	12.2	-.8	31.4	30.5	-.2	1.2
1956	349.4	243.5	228.3	15.2	43.9	11.2	12.1	-.9	32.7	31.8	-.5	1.4
1957	365.2	256.5	239.3	17.2	45.3	11.1	12.1	-.9	34.2	33.1	-.3	1.4
1958	366.9	258.2	240.5	17.7	47.7	13.2	14.1	-.9	34.5	33.2	-.1	1.4
1959	400.8	279.6	258.9	20.6	47.6	10.9	11.9	-1.0	36.7	35.3	.0	1.4
1960	415.7	294.9	271.9	23.0	47.2	11.7	12.6	-.9	35.5	34.2	.0	1.3
1961	428.8	303.6	279.5	24.1	48.6	12.1	12.9	-.8	36.5	35.3	.0	1.2
1962	462.0	325.1	298.0	27.1	49.9	12.3	13.0	-.8	37.6	36.4	.0	1.2
1963	488.5	342.9	313.4	29.5	50.5	12.0	12.8	-.7	38.5	37.2	.0	1.4
1964	524.9	368.0	336.1	31.8	52.5	10.8	11.5	-.7	41.7	40.2	-.1	1.5
1965	572.4	396.5	362.0	34.5	56.9	13.1	13.8	-.7	43.8	42.7	-.2	1.3
1966	628.1	439.3	398.4	40.9	60.5	14.1	14.9	-.8	46.4	45.3	-.2	1.3
1967	662.2	471.4	427.0	44.4	61.2	12.6	13.5	-.9	48.6	47.5	-.2	1.3
1968	722.5	519.9	469.6	50.3	64.0	12.7	13.7	-1.0	51.3	50.6	-.4	1.1
1969	779.3	572.9	515.7	57.2	67.0	14.6	15.7	-1.2	52.5	51.9	-.5	1.1
1970	810.7	612.0	548.7	63.2	66.2	14.3	15.6	-1.3	51.9	51.7	-.5	.8
1971	871.5	652.2	581.5	70.7	69.4	15.0	16.4	-1.4	54.4	54.5	-.6	.4
1972	963.6	718.0	635.2	82.8	76.9	18.7	20.4	-1.6	58.1	58.1	-.7	.8
1973	1,086.2	801.3	702.6	98.7	93.8	32.8	34.6	-1.8	61.0	62.3	-2.0	.6
1974	1,160.7	877.5	765.2	112.3	88.7	26.5	29.0	-2.5	62.2	65.8	-3.7	.1
1975	1,239.4	931.4	806.4	125.0	90.0	24.6	28.0	-3.4	65.4	67.4	-1.2	-.8
1976	1,379.2	1,036.3	889.9	146.4	94.1	19.1	22.8	-3.7	75.0	77.1	-1.2	-.9
1977	1,546.5	1,152.3	983.8	168.5	103.5	18.4	22.6	-4.3	85.1	87.1	-1.3	-.7
1978	1,745.4	1,299.7	1,105.4	194.3	117.1	26.1	31.0	-4.9	91.0	93.8	-2.2	-.6
1979	1,963.3	1,460.9	1,235.9	225.0	131.6	30.8	36.6	-5.8	100.7	105.2	-3.4	-1.0
1980 ^p	2,120.5	1,596.5	1,343.6	252.9	130.6	23.4	30.3	-6.9	107.2	112.6	-3.4	-1.9
1978:												
I	1,644.6	1,238.1	1,052.8	185.4	110.3	22.9	27.5	-4.6	87.4	89.7	-1.7	-.5
II	1,720.7	1,282.3	1,091.0	191.3	115.5	24.9	29.7	-4.8	90.5	93.1	-2.1	-.5
III	1,771.7	1,316.5	1,119.8	196.8	118.2	26.1	31.1	-5.0	92.1	94.9	-2.2	-.7
IV	1,844.6	1,361.7	1,157.9	203.8	124.6	30.6	35.8	-5.2	94.0	97.4	-2.7	-.8
1979:												
I	1,903.6	1,409.9	1,194.9	215.0	127.8	30.9	36.3	-5.4	96.8	100.5	-3.0	-.7
II	1,932.0	1,439.0	1,217.8	221.2	129.4	32.6	38.3	-5.7	96.8	100.6	-3.1	-.8
III	1,986.2	1,476.7	1,248.5	228.2	132.9	30.2	36.2	-5.9	102.7	107.3	-3.5	-1.2
IV	2,031.3	1,518.1	1,282.4	235.7	136.3	29.5	35.7	-6.2	106.8	112.2	-4.0	-1.5
1980:												
I	2,088.5	1,558.0	1,314.5	243.5	133.7	25.7	32.3	-6.5	107.9	114.8	-5.3	-1.6
II	2,070.0	1,569.0	1,320.4	248.6	124.9	23.3	30.2	-6.9	101.6	105.5	-2.0	-1.9
III	2,122.4	1,597.4	1,342.3	255.0	129.7	22.1	29.0	-6.9	107.6	113.1	-3.5	-2.0

See next page for continuation of table.

TABLE B-19.—National income by type of income, 1929-80—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
	Total	Rental income of persons	Capital consumption adjustment	Total	Profits with inventory valuation adjustment and without capital consumption adjustment							Capital consumption adjustment		
					Total	Profits before taxes	Profits tax liability	Profits after tax			Inventory valuation adjustment			
								Total	Dividends	Undistributed profits				
1929	4.9	5.7	-0.8	9.0	10.5	10.0	1.4	8.6	5.8	2.8	0.5	-1.4	4.7	
1933	2.2	2.3	-1	-1.7	-1.2	1.0	.5	.4	2.0	-1.6	-2.1	-.6	4.1	
1939	2.6	3.1	-.6	5.3	6.5	7.2	1.4	5.7	3.8	2.0	-.7	-1.1	3.6	
1940	2.7	3.3	-.6	8.6	9.8	10.0	2.8	7.2	4.0	3.2	-.2	-1.2	3.3	
1941	3.1	3.9	-.8	14.1	15.4	17.9	7.6	10.3	4.4	5.8	-2.5	-1.3	3.3	
1942	4.0	5.0	-1.0	19.3	20.5	21.7	11.4	10.3	4.3	6.0	-1.2	-1.2	3.1	
1943	4.4	5.6	-1.2	23.5	24.5	25.3	14.1	11.2	4.4	6.7	-.8	-1.0	2.7	
1944	4.5	5.9	-1.4	23.6	24.0	24.2	12.9	11.3	4.6	6.7	-.3	-.3	2.4	
1945	4.6	6.2	-1.6	19.0	19.3	19.8	10.7	9.1	4.6	4.5	-.6	-.2	2.2	
1946	5.5	7.3	-1.8	16.6	19.6	24.8	9.1	15.7	5.6	10.2	-5.3	-3.0	1.8	
1947	5.3	7.7	-2.5	22.3	25.9	31.8	11.3	20.5	6.3	14.2	-5.9	-3.6	2.3	
1948	5.7	8.5	-2.8	29.4	33.4	35.6	12.4	23.2	7.0	16.2	-2.2	-4.0	2.4	
1949	6.1	8.9	-2.8	27.1	31.1	29.2	10.2	19.0	7.2	11.8	1.9	-3.9	2.7	
1950	7.1	10.0	-2.9	33.9	37.9	42.9	17.9	25.0	8.8	16.2	-5.0	-4.0	3.0	
1951	7.7	11.0	-3.3	38.7	43.3	44.5	22.6	21.9	8.5	13.4	-1.2	-4.6	3.5	
1952	8.8	12.2	-3.4	36.1	40.6	39.6	19.4	20.2	8.5	11.8	1.0	-4.5	4.0	
1953	10.0	13.4	-3.4	36.3	40.2	41.2	20.3	20.9	8.8	12.1	-1.0	-3.9	4.4	
1954	11.0	14.4	-3.3	35.2	38.4	38.7	17.6	21.1	9.1	11.9	-.3	-3.2	5.3	
1955	11.3	14.8	-3.5	45.5	47.5	49.2	22.0	27.2	10.3	16.9	-1.7	-2.0	5.9	
1956	11.6	15.2	-3.6	43.7	46.9	49.6	22.0	27.6	11.1	16.6	-2.7	-3.2	6.6	
1957	12.2	15.9	-3.6	43.3	46.6	48.1	21.4	26.7	11.5	15.2	-1.5	-3.4	7.9	
1958	12.9	16.7	-3.8	38.5	41.6	41.9	19.0	22.9	11.3	11.6	-.3	-3.2	9.6	
1959	13.6	17.4	-3.8	49.6	52.3	52.6	23.6	28.9	12.2	16.7	-.3	-2.7	10.3	
1960	14.5	18.0	-3.5	47.6	49.7	49.8	22.7	27.1	12.9	14.3	-.2	-2.0	11.4	
1961	15.0	18.4	-3.4	48.6	50.0	49.7	22.8	26.9	13.3	13.6	.3	-1.4	13.0	
1962	15.8	19.1	-3.4	56.6	55.1	55.0	24.0	31.1	14.4	16.6	.0	1.5	14.7	
1963	16.5	19.7	-3.2	62.1	59.7	59.6	26.2	33.4	15.5	17.9	.1	2.5	16.4	
1964	17.1	20.2	-3.2	69.2	66.0	66.5	28.0	38.5	17.3	21.2	-.5	3.1	18.3	
1965	18.0	21.2	-3.3	80.0	76.0	77.2	30.9	46.3	19.1	27.2	-1.2	4.0	21.0	
1966	18.7	22.3	-3.6	85.1	80.9	83.0	33.7	49.4	19.4	29.9	-2.1	4.2	24.4	
1967	19.7	23.6	-3.9	82.4	78.1	79.7	32.5	47.2	20.2	27.0	-1.6	4.3	27.6	
1968	19.5	24.0	-4.5	89.1	84.9	88.5	39.2	49.4	22.0	27.3	-3.7	4.3	30.0	
1969	19.6	25.2	-5.6	85.1	80.8	86.7	39.5	47.2	22.5	24.7	-5.9	4.3	34.8	
1970	19.7	25.8	-6.1	71.4	68.9	75.4	34.2	41.3	22.5	18.8	-6.6	2.5	41.4	
1971	20.2	27.1	-6.9	83.2	82.0	86.6	37.5	49.0	22.9	26.1	-4.6	1.3	46.5	
1972	21.0	29.0	-8.0	96.6	94.0	100.6	41.6	58.9	24.4	34.5	-6.6	2.7	51.2	
1973	22.6	32.1	-9.5	108.3	105.6	125.6	49.0	76.6	27.0	49.6	-20.0	2.7	60.2	
1974	23.5	35.3	-11.8	94.9	96.7	136.7	51.6	85.1	29.9	55.2	-40.0	-1.8	76.1	
1975	23.0	36.8	-13.8	110.5	120.6	132.1	50.6	81.5	30.8	50.7	-11.6	-10.1	84.5	
1976	23.5	39.2	-15.6	138.1	151.6	166.3	63.8	102.5	37.4	65.1	-14.7	-13.5	87.2	
1977	25.1	44.2	-19.1	164.7	176.7	192.6	72.6	120.0	39.9	80.1	-15.8	-12.0	100.9	
1978	27.4	50.8	-23.4	185.5	199.0	223.3	83.0	140.3	44.6	95.7	-24.3	-13.5	115.8	
1979	30.5	58.9	-28.3	196.8	212.7	255.4	87.6	167.8	50.2	117.6	-42.6	-15.9	143.4	
1980 ^a	31.9	65.1	-33.3	181.7	199.2	241.2	80.1	161.1	56.0	105.1	-42.0	-17.5	179.8	
1978:														
I	25.3	46.7	-21.5	163.6	174.9	196.5	71.2	125.4	42.3	83.1	-21.6	-11.3	107.3	
II	25.4	48.3	-22.9	185.2	197.4	220.6	83.3	137.2	43.5	93.8	-23.2	-12.2	112.3	
III	28.7	52.7	-24.0	190.5	205.4	227.9	85.0	142.9	45.4	97.4	-22.6	-14.9	117.8	
IV	30.0	55.3	-25.3	202.7	218.3	248.1	92.3	155.8	47.3	108.4	-29.8	-15.6	125.7	
1979:														
I	30.7	56.7	-26.0	201.9	217.8	253.1	88.5	164.6	49.0	115.5	-35.3	-15.9	133.4	
II	30.1	57.6	-27.5	196.6	213.0	250.9	86.4	164.6	49.8	114.8	-37.9	-16.4	136.9	
III	30.3	59.7	-29.4	199.5	215.6	262.0	88.4	173.6	50.2	123.5	-46.5	-16.1	146.8	
IV	31.0	61.4	-30.4	189.4	204.5	255.4	87.2	168.2	51.6	116.6	-50.8	-15.1	156.5	
1980:														
I	31.2	62.9	-31.6	200.2	215.6	277.1	94.2	182.9	53.9	128.9	-61.4	-15.4	165.4	
II	31.5	64.5	-33.0	169.3	186.9	217.9	71.5	146.5	55.7	90.7	-31.1	-17.6	175.3	
III	32.0	65.9	-33.9	177.9	195.9	237.6	78.5	159.1	56.7	102.4	-41.7	-17.9	185.3	

^a National income is the total net income earned in production. It differs from gross national 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-17.

^b Employer contributions for social insurance and to private pension, health, and welfare funds; workmen's compensation; directors' fees; and a few other minor items.

^c With inventory valuation adjustment and without capital consumption adjustment.

^d Without inventory valuation and capital consumption adjustments.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-20.—Sources of personal income, 1929-80
 (Billions of dollars; quarterly data at seasonally adjusted annual rates)

Year or quarter	Personal income	Wage and salary disbursements ¹						Other labor income ¹	Proprietors' income with inventory valuation and capital consumption adjustments	
		Total	Commodity-producing industries		Distributive industries	Service industries	Government and government enterprises			
			Total	Manufacturing						
									Farm	Nonfarm
1929.....	85.0	50.5	21.5	16.1	15.6	8.4	5.0	0.5	6.1	8.9
1933.....	47.0	29.0	9.8	7.8	8.8	5.2	5.2	.4	2.5	3.3
1939.....	72.4	46.0	17.4	13.6	13.3	7.1	8.2	.6	4.4	7.4
1940.....	77.9	49.9	19.7	15.6	14.2	7.5	8.5	.6	4.4	8.6
1941.....	95.4	62.1	27.5	21.7	16.3	8.1	10.2	.7	6.4	11.1
1942.....	122.6	82.1	39.1	30.9	18.0	9.0	16.0	.9	10.1	14.1
1943.....	150.8	105.6	49.0	40.9	20.1	9.9	26.6	1.1	12.0	17.1
1944.....	164.5	116.9	50.4	42.9	22.7	10.9	33.0	1.5	12.0	18.4
1945.....	170.0	117.5	45.9	38.2	24.8	11.9	34.9	1.8	12.4	19.4
1946.....	177.6	112.0	46.0	36.5	31.0	14.3	20.7	2.0	14.9	21.8
1947.....	190.1	123.1	54.2	42.5	35.2	16.1	17.5	2.4	15.1	20.8
1948.....	209.0	135.5	61.1	47.1	37.5	17.9	19.0	2.7	17.6	23.3
1949.....	206.4	134.8	57.8	44.6	37.7	18.5	20.8	2.9	12.8	23.6
1950.....	227.2	147.0	64.8	50.3	39.8	19.8	22.6	3.7	13.7	25.0
1951.....	254.9	171.3	76.3	59.3	44.3	21.5	29.2	4.6	16.1	27.2
1952.....	271.8	185.4	82.0	64.1	46.9	23.1	33.3	5.2	15.1	28.2
1953.....	287.7	198.6	89.6	71.2	49.7	24.9	34.4	5.9	13.1	28.6
1954.....	289.6	196.8	85.7	67.5	50.1	26.1	34.9	6.1	12.5	28.7
1955.....	310.3	211.7	93.1	73.8	53.4	28.6	36.6	7.0	11.5	31.4
1956.....	332.6	228.3	100.6	79.4	57.7	31.3	38.8	8.0	11.2	32.7
1957.....	351.0	239.3	104.2	82.4	60.5	33.6	41.0	9.0	11.1	34.2
1958.....	361.1	240.5	100.0	78.6	60.8	35.6	44.1	9.4	13.2	34.5
1959.....	384.4	258.9	109.6	86.8	64.8	38.5	46.0	10.6	10.9	36.7
1960.....	402.3	271.9	113.1	89.7	68.2	41.4	49.2	11.2	11.7	35.5
1961.....	417.8	279.5	113.7	89.8	69.3	44.1	52.4	11.8	12.1	36.5
1962.....	443.6	298.0	121.8	96.7	72.8	47.2	56.3	13.0	12.3	37.6
1963.....	466.2	313.4	126.9	100.6	76.3	50.2	60.0	14.0	12.0	38.5
1964.....	499.2	336.1	135.4	107.1	81.4	54.4	64.9	15.7	10.8	41.7
1965.....	540.7	362.0	146.0	115.5	87.2	58.9	69.9	17.8	13.1	43.8
1966.....	588.2	398.4	161.0	128.0	94.4	64.7	78.3	19.9	14.1	46.4
1967.....	630.0	427.0	168.3	134.1	100.9	71.3	86.4	21.7	12.6	48.6
1968.....	690.6	469.6	183.4	145.8	110.0	79.6	96.6	25.2	12.7	51.3
1969.....	754.7	515.7	199.6	157.5	120.8	89.7	105.5	28.5	14.6	52.5
1970.....	811.1	548.7	203.0	158.2	130.3	98.3	117.1	32.5	14.3	51.9
1971.....	868.4	580.9	208.3	160.3	139.4	106.7	126.5	36.7	15.0	54.4
1972.....	951.4	635.2	227.3	175.4	152.1	118.2	137.5	43.0	18.7	58.1
1973.....	1,065.2	702.7	254.3	196.2	168.3	131.3	148.7	48.8	32.8	61.0
1974.....	1,168.6	765.7	274.7	211.4	184.6	145.6	160.9	55.8	26.5	62.2
1975.....	1,265.0	806.4	275.0	211.0	195.6	159.7	176.1	64.5	24.6	65.4
1976.....	1,391.2	889.9	307.3	237.4	216.6	177.4	188.7	75.9	19.1	75.0
1977.....	1,538.0	983.8	343.5	266.0	239.4	198.6	202.3	89.0	18.4	85.1
1978.....	1,721.8	1,105.2	389.1	299.2	270.5	226.1	219.4	102.2	26.1	91.0
1979.....	1,943.8	1,236.1	437.9	333.4	303.0	259.2	236.1	118.6	30.8	100.7
1980 ²	2,160.5	1,343.6	464.9	350.2	329.1	295.9	253.6	136.9	23.4	107.2
1978: I.....	1,637.9	1,052.8	365.6	285.8	258.7	214.8	213.7	97.2	22.9	87.4
II.....	1,692.1	1,091.0	384.8	294.5	266.9	222.3	216.9	100.4	24.9	90.5
III.....	1,747.7	1,119.3	395.9	302.5	273.4	229.4	220.5	103.7	26.1	92.1
IV.....	1,809.3	1,157.6	410.3	314.0	283.0	237.7	226.5	107.4	30.6	94.0
1979: I.....	1,864.6	1,194.8	425.1	326.1	292.8	247.0	229.8	111.6	30.9	96.8
II.....	1,906.3	1,218.6	434.3	331.7	297.5	252.6	234.2	115.9	32.6	96.8
III.....	1,972.3	1,248.6	441.6	335.5	306.5	263.4	237.1	120.9	30.2	102.7
IV.....	2,032.0	1,282.2	450.4	340.4	315.0	273.7	243.1	126.0	29.5	106.8
1980: I.....	2,088.2	1,314.7	461.7	347.9	322.6	283.6	246.8	130.9	25.7	107.9
II.....	2,114.5	1,320.4	456.0	343.2	323.2	290.8	250.5	135.1	23.3	101.6
III.....	2,182.1	1,341.8	460.1	346.7	329.2	298.7	253.9	139.1	22.1	107.6

See next page for continuation of table.

TABLE B-20.—Sources of personal income, 1929-80—Continued

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Rental income of persons with capital consumption adjustment	Personal dividend incomes	Personal interest income	Transfer payments							Less: Personal contributions for social insurance	Nonfarm personal income ²
				Total	Old-age, survivors, disability, and health insurance benefits	Government unemployment insurance benefits	Veterans benefits	Government employee retirement benefits	Aid to families with dependent children (AFDC)	Other		
1929	4.9	5.8	6.9	1.5			0.6	0.1	0.8		0.1	
1933	2.2	2.0	5.5	2.1			.6	.2	1.4		.2	
1939	2.6	3.8	5.4	3.0	0.0	0.4	.5	.3	1.7		.6	
1940	2.7	4.0	5.3	3.1	.0	.5	.5	.3	1.7		.7	
1941	3.1	4.4	5.3	3.1	.1	.4	.5	.3	1.8		.8	
1942	4.0	4.3	5.2	3.1	.1	.4	.5	.3	1.8		1.2	
1943	4.4	4.4	5.1	3.0	.2	.1	.5	.4	1.8		1.8	
1944	4.5	4.6	5.2	3.6	.2	.1	1.0	.4	2.0		2.2	
1945	4.6	4.6	5.9	6.2	.3	.4	3.0	.5	2.0		2.3	
1946	5.5	5.6	6.6	11.3	.4	1.1	7.0	.7	2.1		2.0	159.9
1947	5.3	6.3	7.6	11.7	.5	.8	7.0	.7	.3	2.5	2.1	171.9
1948	5.7	7.0	8.1	11.3	.6	.9	5.9	.7	.4	2.9	2.2	188.2
1949	6.1	7.2	8.7	12.5	.7	1.9	5.3	.9	.5	3.3	2.2	190.4
1950	7.1	8.8	9.7	15.2	1.0	1.5	7.7	1.0	.6	3.5	2.9	210.2
1951	7.7	8.5	10.5	12.6	1.9	.9	4.6	1.1	.6	3.6	3.4	235.4
1952	8.8	8.5	11.2	13.1	2.2	1.1	4.3	1.2	.5	3.8	3.8	253.1
1953	10.0	8.8	12.5	14.1	3.0	1.0	4.1	1.4	.5	4.1	4.0	271.3
1954	11.0	9.1	13.7	16.2	3.6	2.2	4.2	1.5	.6	4.1	4.6	273.9
1955	11.3	10.3	14.9	17.5	4.9	1.5	4.4	1.7	.6	4.3	5.2	295.5
1956	11.6	11.1	16.7	18.7	5.7	1.5	4.4	1.9	.6	4.5	5.8	318.0
1957	12.2	11.5	18.8	21.6	7.3	1.9	4.5	2.2	.7	4.9	6.7	336.6
1958	12.9	11.3	20.3	25.9	8.5	4.1	4.7	2.5	.8	5.3	6.9	344.4
1959	13.6	12.2	22.5	27.0	10.2	2.8	4.6	2.8	.9	5.8	7.9	369.8
1960	14.5	12.9	25.0	28.9	11.1	3.0	4.6	3.1	1.0	6.2	9.3	386.7
1961	15.0	13.3	26.4	32.8	12.6	4.3	5.0	3.4	1.1	6.4	9.7	401.6
1962	15.8	14.4	29.0	33.8	14.3	3.1	4.7	3.7	1.3	6.7	10.3	427.1
1963	16.5	15.5	32.2	35.8	15.2	3.0	4.8	4.2	1.4	7.3	11.8	449.7
1964	17.1	17.3	35.6	37.4	16.0	2.7	4.7	4.7	1.5	7.8	12.6	483.7
1965	18.0	19.1	39.7	40.4	18.1	2.3	4.9	5.2	1.7	8.3	13.3	522.6
1966	18.7	19.4	44.4	44.7	20.8	1.9	4.9	6.1	1.9	9.2	17.8	568.9
1967	19.7	20.2	48.3	52.6	25.5	2.2	5.6	6.9	2.3	10.2	20.6	611.9
1968	19.5	21.9	53.4	59.8	30.2	2.1	5.9	7.6	2.8	11.1	22.9	672.1
1969	19.6	22.4	61.1	66.7	32.9	2.2	6.7	8.7	3.5	12.5	26.2	733.9
1970	19.7	22.2	69.4	80.1	38.5	4.0	7.7	10.2	4.8	15.0	27.9	790.0
1971	20.2	22.6	74.8	94.4	44.5	5.8	8.8	11.8	6.2	17.4	30.7	846.5
1972	21.0	24.1	80.9	104.7	49.6	5.7	9.7	13.8	6.9	19.0	34.5	925.3
1973	22.6	26.5	93.9	119.5	60.4	4.4	10.4	16.0	7.2	21.1	42.6	1,023.7
1974	23.5	29.1	112.4	141.2	70.1	6.8	11.8	19.0	7.9	25.6	47.9	1,131.8
1975	23.0	29.9	123.2	178.3	81.4	17.6	14.5	22.7	9.2	32.8	50.4	1,229.1
1976	23.5	36.5	132.5	194.3	92.9	15.8	14.4	26.1	10.1	35.1	55.5	1,359.3
1977	25.1	38.7	151.6	207.5	104.9	12.7	13.8	29.0	10.6	36.5	61.1	1,505.0
1978	27.4	43.1	173.2	223.3	116.2	9.7	13.9	32.7	10.7	40.1	69.6	1,679.2
1979	30.5	48.6	209.6	249.4	131.8	9.8	14.4	37.0	11.0	45.4	80.6	1,892.9
1980 ^a	31.9	54.4	256.3	294.5	153.9	16.0	15.0	42.8	12.4	54.4	87.9	2,112.8
1978:												
I	25.3	40.8	161.7	216.9	111.4	10.9	14.0	31.2	10.7	38.7	67.1	1,599.6
II	25.4	42.0	168.5	218.2	112.3	9.7	13.7	32.2	10.7	39.6	69.0	1,651.1
III	28.7	43.9	176.9	227.4	119.7	9.5	13.7	32.9	10.7	40.9	70.4	1,705.0
IV	30.0	45.8	185.6	230.5	121.5	8.8	14.1	34.3	10.7	41.1	72.1	1,761.1
1979:												
I	30.7	47.5	195.8	235.4	123.6	9.2	14.4	35.0	10.7	42.5	79.0	1,814.8
II	30.1	48.3	202.6	241.3	126.5	9.4	14.2	36.4	10.8	44.1	80.0	1,853.9
III	30.3	48.6	214.3	257.8	137.8	9.8	14.4	37.3	11.1	47.3	81.2	1,921.5
IV	31.0	50.1	225.7	263.1	139.3	10.6	14.6	39.2	11.5	47.8	82.4	1,981.2
1980:												
I	31.2	52.4	239.9	271.7	142.0	11.4	14.8	40.2	11.7	51.6	86.2	2,039.6
II	31.5	54.2	253.6	280.7	144.7	16.0	14.6	42.3	12.0	51.0	85.9	2,067.3
III	32.0	55.1	261.8	310.7	163.2	19.0	14.9	43.1	12.8	57.7	88.1	2,135.3

¹ The total of wage and salary disbursements and other labor income differs from compensation of employees in Table B-19 in that it excludes employer contributions for social insurance and the excess of wage accruals over wage disbursements.

² Personal income exclusive of farm proprietors' income, farm wages, farm other labor income, and agricultural net interest.

Note.—The industry classification of wage and salary disbursements and proprietors' income is on an establishment basis and is based on the 1972 Standard Industrial Classification (SIC) beginning 1948 and on the 1942 SIC prior to 1948.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-21.—Disposition of personal income, 1929-80

(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		
				Total	Personal consumption expenditures	Interest paid by consumers to business	Personal transfer payments to foreigners (net)		Personal outlays		Personal saving
									Total	Consumption expenditures	
1929.....	85.0	2.6	82.4	79.1	77.3	1.5	0.3	3.3	96.0	93.8	4.0
1933.....	47.0	1.4	45.6	46.5	45.8	.5	.2	-0.9	102.0	100.5	-2.0
1939.....	72.4	2.4	70.0	67.8	67.0	.7	.2	2.2	96.9	95.6	3.1
1940.....	77.9	2.6	75.3	72.0	71.0	.8	.2	3.4	95.5	94.2	4.5
1941.....	95.4	3.3	92.2	81.8	80.8	.9	.2	10.3	88.8	87.6	11.2
1942.....	122.6	5.9	116.6	89.4	88.6	.7	.1	27.2	76.7	76.0	23.3
1943.....	150.8	17.8	133.0	100.1	99.4	.5	.2	32.9	75.3	74.7	24.7
1944.....	164.5	18.9	145.6	109.0	108.2	.5	.4	36.6	74.8	74.3	25.2
1945.....	170.0	20.8	149.1	120.4	119.5	.5	.5	28.7	80.8	80.1	19.2
1946.....	177.6	18.7	158.9	145.2	143.8	.7	.7	13.7	91.4	90.5	8.6
1947.....	190.1	21.4	168.7	163.5	161.7	1.0	.7	5.2	96.9	95.9	3.1
1948.....	209.0	21.0	188.0	176.9	174.7	1.4	.7	11.1	94.1	93.0	5.9
1949.....	206.4	18.5	187.9	180.4	178.1	1.7	.5	7.5	96.0	94.8	4.0
1950.....	227.2	20.6	206.6	194.7	192.0	2.3	.4	11.9	94.2	92.9	5.8
1951.....	254.9	28.9	226.0	210.0	207.1	2.5	.4	16.1	92.9	91.6	7.1
1952.....	271.8	34.0	237.7	220.4	217.1	2.9	.4	17.4	92.7	91.3	7.3
1953.....	287.7	35.5	252.2	233.7	229.7	3.6	.5	18.5	92.7	91.1	7.3
1954.....	289.6	32.5	257.1	240.1	235.8	3.8	.5	17.0	93.4	91.7	6.6
1955.....	310.3	35.4	275.0	258.5	253.7	4.4	.4	16.4	94.0	92.3	6.0
1956.....	332.6	39.7	292.9	271.6	266.0	5.1	.5	21.3	92.7	90.8	7.3
1957.....	351.0	42.4	308.6	286.4	280.4	5.5	.5	22.3	92.8	90.9	7.2
1958.....	361.1	42.1	319.0	295.4	289.5	5.6	.4	23.6	92.6	90.7	7.4
1959.....	384.4	46.0	338.4	317.3	310.8	6.1	.4	21.1	93.8	91.8	6.2
1960.....	402.3	50.4	352.0	332.3	324.9	7.0	.4	19.7	94.4	92.3	5.6
1961.....	417.8	52.1	365.8	342.7	335.0	7.3	.4	23.0	93.7	91.6	6.3
1962.....	443.6	56.8	386.8	363.5	355.2	7.8	.5	23.3	94.0	91.8	6.0
1963.....	466.2	60.3	405.9	384.0	374.6	8.8	.6	21.9	94.6	92.3	5.4
1964.....	499.2	58.6	440.6	411.0	400.5	9.9	.6	29.6	93.3	90.9	6.7
1965.....	540.7	64.9	475.8	442.1	430.4	11.1	.7	33.7	92.9	90.5	7.1
1966.....	588.2	74.5	513.7	477.7	465.1	12.0	.7	36.0	93.0	90.5	7.0
1967.....	630.0	82.1	547.9	503.6	490.3	12.5	.9	44.3	91.9	89.5	8.1
1968.....	690.6	97.2	593.4	551.5	536.9	13.8	.8	41.9	92.9	90.5	7.1
1969.....	754.7	115.7	638.9	598.3	581.8	15.6	.9	40.6	93.6	91.1	6.4
1970.....	811.1	115.8	695.3	639.5	621.7	16.7	1.1	55.8	92.0	89.4	8.0
1971.....	868.4	116.7	751.8	691.1	672.2	17.7	1.1	60.7	91.9	89.4	8.1
1972.....	951.4	141.0	810.3	757.7	737.1	19.5	1.1	52.6	93.5	91.0	6.5
1973.....	1,065.2	150.7	914.5	835.5	812.0	22.3	1.3	79.0	91.4	88.8	8.6
1974.....	1,168.6	170.2	998.3	913.2	888.1	24.1	1.0	85.1	91.5	89.0	8.5
1975.....	1,265.0	168.9	1,096.1	1,001.8	976.4	24.4	.9	94.3	91.4	89.1	8.6
1976.....	1,391.2	196.8	1,194.4	1,111.9	1,084.3	26.7	.9	82.5	93.1	90.8	6.9
1977.....	1,538.0	226.5	1,311.5	1,237.5	1,205.5	31.1	.9	74.1	94.4	91.9	5.6
1978.....	1,721.8	258.8	1,462.9	1,386.6	1,348.7	37.1	.8	76.3	94.8	92.2	5.2
1979.....	1,943.8	302.0	1,641.7	1,555.5	1,510.9	43.7	1.0	86.2	94.8	92.0	5.3
1980 P.....	2,160.5	338.7	1,821.7	1,717.6	1,670.1	46.4	1.1	104.2	94.3	91.7	5.7
1978:											
I.....	1,637.9	239.9	1,398.0	1,313.4	1,278.3	34.4	.7	84.6	94.0	91.4	6.1
II.....	1,692.1	251.4	1,440.7	1,367.1	1,330.1	36.2	.8	73.6	94.9	92.3	5.1
III.....	1,747.7	265.7	1,482.1	1,408.7	1,369.9	38.0	.7	73.4	95.0	92.4	5.0
IV.....	1,809.3	278.3	1,531.0	1,457.1	1,416.6	39.7	.9	73.8	95.2	92.5	4.8
1979:											
I.....	1,864.6	284.4	1,580.2	1,496.3	1,454.1	41.4	.8	83.8	94.7	92.0	5.3
II.....	1,906.3	293.5	1,612.8	1,521.9	1,478.0	43.1	.8	90.9	94.4	91.6	5.6
III.....	1,972.3	308.4	1,663.8	1,574.5	1,529.1	44.5	.9	89.3	94.6	91.9	5.4
IV.....	2,032.0	321.8	1,710.1	1,629.4	1,582.3	45.8	1.3	80.7	95.3	92.5	4.7
1980:											
I.....	2,088.2	323.1	1,765.1	1,678.7	1,631.0	46.7	1.0	86.4	95.1	92.4	4.9
II.....	2,114.5	330.3	1,784.1	1,674.1	1,626.8	46.3	1.0	110.0	93.8	91.2	6.2
III.....	2,182.1	341.5	1,840.6	1,729.2	1,682.2	46.0	1.0	111.4	93.9	91.4	6.1

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-22.—Total and per capita disposable personal income and personal consumption expenditures in current and 1972 dollars, 1929-80

[Quarterly data at seasonally adjusted annual rates, except as noted]

Year or quarter	Disposable personal income				Personal consumption expenditures				Population (thousands) ¹
	Total (billions of dollars)		Per capita (dollars)		Total (billions of dollars)		Per capita (dollars)		
	Current dollars	1972 dollars	Current dollars	1972 dollars	Current dollars	1972 dollars	Current dollars	1972 dollars	
1929.....	82.4	229.5	676	1,883	77.3	215.1	634	1,765	121,875
1933.....	45.6	169.6	363	1,349	45.8	170.5	364	1,356	125,690
1939.....	70.0	229.8	534	1,754	67.0	219.8	511	1,678	131,028
1940.....	75.3	244.0	570	1,847	71.0	229.9	537	1,740	132,122
1941.....	92.2	277.9	691	2,083	80.8	243.6	605	1,826	133,402
1942.....	116.6	317.5	865	2,354	88.6	241.1	657	1,788	134,860
1943.....	133.0	332.1	973	2,429	99.4	248.2	727	1,815	136,739
1944.....	145.6	343.6	1,052	2,483	108.2	255.2	781	1,844	138,397
1945.....	149.1	338.1	1,066	2,416	119.5	270.9	854	1,936	139,928
1946.....	158.9	332.7	1,124	2,353	143.8	301.0	1,017	2,129	141,389
1947.....	168.7	319.0	1,170	2,214	161.7	305.8	1,122	2,122	144,126
1948.....	188.0	336.0	1,282	2,291	174.7	312.2	1,192	2,129	146,631
1949.....	187.9	336.9	1,259	2,258	178.1	319.3	1,194	2,140	149,188
1950.....	206.6	362.9	1,362	2,393	192.0	337.3	1,266	2,224	151,684
1951.....	226.0	372.7	1,465	2,415	207.1	341.6	1,342	2,214	154,287
1952.....	237.7	383.2	1,515	2,441	217.1	350.1	1,383	2,230	156,954
1953.....	252.2	399.1	1,581	2,501	229.7	363.4	1,439	2,277	159,565
1954.....	257.1	403.3	1,583	2,484	235.8	370.0	1,452	2,278	162,391
1955.....	275.0	426.9	1,664	2,583	253.7	394.1	1,535	2,384	165,275
1956.....	292.9	446.3	1,741	2,653	266.0	405.4	1,581	2,410	168,221
1957.....	308.6	455.6	1,802	2,660	280.4	413.8	1,637	2,416	171,274
1958.....	319.0	460.7	1,832	2,645	289.5	418.0	1,662	2,400	174,141
1959.....	338.4	479.7	1,903	2,697	310.8	440.4	1,747	2,476	177,888
1960.....	352.0	489.7	1,947	2,709	324.9	452.0	1,797	2,501	180,760
1961.....	365.8	503.8	1,991	2,742	335.0	461.4	1,823	2,511	183,742
1962.....	386.8	524.9	2,073	2,813	355.2	482.0	1,904	2,583	186,590
1963.....	405.9	542.3	2,144	2,865	374.6	500.5	1,979	2,644	189,300
1964.....	440.6	580.8	2,296	3,026	400.5	528.0	2,087	2,751	191,927
1965.....	475.8	616.3	2,448	3,171	430.4	557.5	2,214	2,868	194,347
1966.....	513.7	646.8	2,613	3,290	465.1	585.7	2,366	2,979	196,599
1967.....	547.9	673.5	2,757	3,389	490.3	602.7	2,467	3,032	198,752
1968.....	593.4	701.3	2,956	3,493	536.9	634.4	2,674	3,160	200,745
1969.....	638.9	722.5	3,152	3,564	581.8	657.9	2,870	3,245	202,736
1970.....	695.3	751.6	3,393	3,668	621.7	672.1	3,034	3,280	204,918
1971.....	751.8	779.2	3,630	3,763	672.2	696.8	3,246	3,365	207,084
1972.....	810.3	810.3	3,880	3,880	737.1	737.1	3,529	3,529	208,873
1973.....	914.5	865.3	4,346	4,112	812.0	768.5	3,858	3,652	210,440
1974.....	998.3	858.4	4,710	4,050	888.1	763.6	4,190	3,603	211,945
1975.....	1,096.1	875.8	5,132	4,101	976.4	780.2	4,572	3,653	213,566
1976.....	1,194.4	907.4	5,550	4,216	1,084.3	823.7	5,038	3,828	215,203
1977.....	1,311.5	939.8	6,046	4,332	1,205.5	863.9	5,557	3,982	216,928
1978.....	1,462.9	981.5	6,688	4,487	1,348.7	904.8	6,166	4,136	218,749
1979.....	1,641.7	1,011.5	7,441	4,584	1,510.9	930.9	6,848	4,219	220,643
1980 ^a	1,821.8	1,017.7	8,176	4,567	1,670.1	933.0	7,496	4,188	222,804
1978: I.....	1,398.0	966.8	6,411	4,434	1,278.3	884.1	5,862	4,054	218,052
II.....	1,440.7	975.5	6,594	4,465	1,330.1	900.6	6,088	4,122	218,483
III.....	1,482.1	985.9	6,768	4,502	1,369.9	911.2	6,256	4,161	218,983
IV.....	1,531.0	998.0	6,975	4,547	1,416.6	923.4	6,454	4,207	219,478
1979: I.....	1,580.2	1,005.7	7,186	4,574	1,454.1	925.5	6,613	4,209	219,896
II.....	1,612.8	1,006.9	7,320	4,570	1,478.0	922.8	6,708	4,188	220,335
III.....	1,663.8	1,015.7	7,533	4,598	1,529.1	933.4	6,923	4,226	220,884
IV.....	1,710.1	1,017.7	7,722	4,596	1,582.3	941.6	7,145	4,252	221,455
1980: I.....	1,765.1	1,021.0	7,953	4,600	1,631.0	943.4	7,349	4,251	221,938
II.....	1,784.1	1,008.2	8,020	4,532	1,626.8	919.3	7,313	4,133	222,447
III.....	1,840.6	1,018.5	8,249	4,565	1,682.2	930.8	7,539	4,172	223,126

¹ Population of the United States including Armed Forces overseas; includes Alaska and Hawaii beginning 1959. Annual data are for July 1 through 1958 and are averages of quarterly data beginning 1959. Quarterly data are average for the period. Data from 1980 census not yet available.

Source: Department of Commerce (Bureau of Economic Analysis and Bureau of the Census).

TABLE B-23.—Gross saving and investment, 1929-80

(Billions of dollars; quarterly data at seasonally adjusted annual rates)

Year or quarter	Gross saving							Gross investment				Statistical discrepancy
	Total	Gross private saving			Government surplus or deficit (-), national income and product accounts			Capital grants received by the United States (net) ²	Total	Gross private domestic investment	Net foreign investment ³	
		Total	Personal saving	Gross business saving ¹	Total	Federal	State and local					
1929	15.9	14.9	3.3	11.6	1.0	1.2	-0.2	17.0	16.2	0.8	1.1	
1933 .....	.9	2.2	-9	3.1	-1.4	-1.3	-1	1.6	1.4	.2	.7
1939	8.8	11.0	2.2	8.8	-2.2	-2.2	.0	10.3	9.3	1.0	1.4	
1940	13.5	14.2	3.4	10.8	-.7	-1.3	.6	14.7	13.1	1.5	1.1	
1941	18.6	22.4	10.3	12.1	-3.8	-5.1	1.3	19.2	17.9	1.3	.6	
1942	10.7	42.0	27.2	14.8	-31.4	-33.1	1.8	9.8	9.9	-.1	-.8	
1943	5.4	49.6	32.9	16.7	-44.1	-46.6	2.5	3.7	5.8	-2.1	-1.8	
1944	2.4	54.3	36.6	17.6	-51.8	-54.5	2.7	5.2	7.2	-2.0	2.7	
1945	5.2	44.7	28.7	16.0	-39.5	-42.1	2.6	9.3	10.6	-1.3	4.1	
1946	35.1	29.6	13.7	15.9	5.4	3.5	1.9	35.6	30.7	4.9	.5	
1947	41.7	27.3	5.2	22.1	14.4	13.4	1.0	43.2	34.0	9.3	1.5	
1948	49.8	41.4	11.1	30.2	8.4	8.3	.1	48.3	45.9	2.4	-1.6	
1949	35.6	39.0	7.5	31.5	-3.4	-2.6	-.7	36.2	35.3	.9	.6	
1950	50.7	42.7	11.9	30.7	8.0	9.2	-1.2	52.0	53.8	-1.8	1.3	
1951	56.9	50.8	16.1	34.8	6.1	6.5	-.4	60.1	59.2	.9	3.2	
1952	51.0	54.8	17.4	37.4	-3.8	-3.7	-.0	52.7	52.1	.6	1.7	
1953	49.8	56.7	18.5	38.2	-6.9	-7.1	.1	52.1	53.3	-1.3	2.3	
1954	50.9	58.1	17.0	41.1	-7.1	-6.0	-1.1	52.9	52.7	.2	2.0	
1955	67.5	64.4	16.4	47.9	3.1	4.4	-1.3	68.8	68.4	.4	1.3	
1956	75.9	70.7	21.3	49.4	5.2	6.1	-.9	73.8	71.0	2.8	-2.1	
1957	75.2	74.3	22.3	52.0	.9	2.3	-1.4	74.0	69.2	4.8	-1.2	
1958	62.6	75.3	23.6	51.7	-12.6	-10.3	-2.4	62.8	61.9	.9	.2	
1959	78.3	79.9	21.1	58.7	-1.6	-1.1	-.4	77.0	78.1	-1.2	-1.3	
1960	81.1	78.0	19.7	58.3	3.1	3.0	.1	78.7	75.9	2.8	-2.4	
1961	78.7	83.0	23.0	60.0	-4.3	-3.9	-.4	78.6	74.8	3.8	-.1	
1962	86.7	90.5	23.3	67.2	-3.8	-4.2	.5	88.8	85.4	3.4	2.1	
1963	93.6	92.9	21.9	71.0	.7	.3	.5	95.3	90.9	4.4	1.7	
1964	104.0	106.3	29.6	76.7	-2.3	-3.3	1.0	104.2	97.4	6.8	.1	
1965	120.2	119.7	33.7	86.0	.5	.5	-.0	119.0	113.5	5.4	-1.2	
1966	127.3	128.6	36.0	92.7	-1.3	-1.8	.5	128.7	125.7	3.0	1.4	
1967	125.7	139.9	44.3	95.6	-14.2	-13.2	-1.1	125.4	122.8	2.6	-.3	
1968	136.0	142.0	41.9	100.0	-6.0	-6.0	.1	133.9	133.3	.6	-2.1	
1969	153.6	143.6	40.6	103.0	9.9	8.4	1.5	149.7	149.3	.4	-3.9	
1970	148.9	158.6	55.8	102.8	-10.6	-12.4	1.9	147.4	144.2	3.2	-1.5	
1971	161.6	180.3	60.7	119.7	-19.4	-22.0	2.6	165.7	166.4	-.7	4.1	
1972	186.6	189.2	52.6	136.6	-3.3	-16.8	13.5	189.9	195.0	-5.1	3.3	
1973	235.5	227.7	79.0	148.7	7.8	-5.6	13.4	.0	236.3	229.8	6.5	.8
1974	227.8	234.5	85.1	149.4	-4.7	-11.5	6.8	-2.0	231.5	228.7	2.9	3.7
1975	218.9	282.7	94.3	188.4	-63.8	-69.3	5.5	.0	224.4	206.1	18.3	5.5
1976	257.9	294.4	82.5	211.9	-36.5	-53.1	16.6	.0	263.0	257.9	5.1	5.1
1977	304.0	322.4	74.1	248.3	-18.3	-46.4	28.1	.0	308.4	322.3	-13.9	4.4
1978	355.2	355.4	76.3	279.1	-.2	-29.2	29.0	.0	361.6	375.3	-13.8	6.4
1979	411.9	398.9	86.2	312.7	11.9	-14.8	26.7	1.1	414.1	415.8	-1.7	2.2
1980 ²	403.9	437.6	104.2	333.4	-34.8	-62.3	27.6	1.1	405.7	395.1	10.6	1.7
1978:												
I.....	326.9	344.7	84.6	260.1	-17.7	-48.8	31.1	.0	326.4	350.7	-24.2	-.5
II.....	354.0	349.1	73.6	275.5	4.9	-27.4	32.3	.0	361.3	377.7	-16.4	7.3
III.....	359.4	358.3	73.4	284.9	1.1	-22.8	23.9	.0	369.4	380.4	-10.9	10.0
IV.....	380.4	369.6	73.8	295.8	10.8	-17.9	28.7	.0	389.1	392.6	-3.5	8.7
1979:												
I.....	407.4	388.2	83.8	304.4	18.1	-11.5	29.5	1.1	413.2	408.3	4.9	5.8
II.....	416.2	401.2	90.9	310.3	13.9	-8.1	21.9	1.1	416.9	423.2	-6.3	.7
III.....	422.3	409.8	89.3	320.5	11.3	-15.2	26.5	1.1	425.1	421.7	3.4	2.8
IV.....	402.0	396.4	80.7	315.7	4.4	-24.5	28.9	1.1	401.3	410.0	-8.7	-7
1980:												
I.....	404.5	413.0	86.4	326.7	-9.6	-36.3	26.6	1.1	407.3	415.6	-8.3	2.8
II.....	394.5	435.9	110.0	325.8	-42.5	-66.5	23.9	1.1	392.5	390.9	1.7	-1.9
III.....	402.0	446.5	111.4	335.1	-45.6	-74.2	28.6	1.1	405.0	377.1	27.8	3.0

¹ Undistributed corporate profits with inventory valuation and capital consumption adjustments, corporate and noncorporate capital consumption allowances with capital consumption adjustment, and private wage accruals less disbursements.² Allocations of special drawing rights (SDRs), except as noted in footnote 4.³ Net exports of goods and services less net transfers to foreigners and interest paid by government to foreigners plus capital grants received by the United States, net.⁴ In February 1974, the U.S. Government paid to India \$2,010 million in rupees under provisions of the Agricultural Trade Development and Assistance Act. This transaction is being treated as capital grants paid to foreigners, i.e., a -\$2.0 billion entry in capital grants received by the United States, net.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-24.—*Saving by individuals, 1946-80¹*
 [Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Increase in financial assets										Net investment in			Less: Net increase in debt		
	Total	Total	Cur- rency and demand deposits	Sav- ings ac- counts	Money mar- ket fund shares	Securities			Insur- ance and pension re- serves ⁶	Miscel- laneous financial assets ⁶	Non- farm homes	Con- sumer dura- bles	Non- cor- porate busi- ness as- sets ⁷	Mort- gage debt on non- farm homes	Con- sumer credit	Other debt ^{7, 8}
						Gov- ernment securi- ties ²	Corpo- rate equi- ties ³	Other securi- ties ⁴								
1946.....	24.4	18.8	5.6	6.3		-1.5	1.1	-0.9	5.3	2.8	3.6	6.1	2.1	3.6	3.1	-0.5
1947.....	20.2	13.2	1.1	3.4		1.6	1.1	-8	5.4	2.4	6.7	8.8	2.0	4.7	3.7	2.2
1948.....	24.5	9.1	-2.9	2.2		1.3	1.0	0	5.3	2.2	9.1	9.8	7.1	4.6	3.2	2.8
1949.....	21.3	9.9	-2.0	2.6		1.8	7	-4	5.6	1.6	8.4	10.9	2.0	4.4	3.2	2.2
1950.....	30.9	13.7	2.6	2.4		-1	7	-7	6.9	1.9	11.8	14.9	7.0	6.7	4.8	5.0
1951.....	34.7	19.1	4.6	4.7		-6	1.8	3	6.3	1.9	11.7	11.3	4.4	6.6	1.6	3.6
1952.....	30.7	23.2	1.6	7.8		2.5	1.6	0	7.7	2.0	11.3	8.4	2.0	6.2	5.3	2.8
1953.....	31.6	22.8	1.0	8.1		2.5	1.0	3	7.9	2.1	12.3	9.4	.8	7.6	4.2	1.9
1954.....	27.7	22.2	2.2	9.1		1.0	8	-9	7.8	2.1	12.7	6.9	1.5	8.7	1.5	5.5
1955.....	33.4	28.0	1.2	8.6		5.8	1.0	.8	8.5	2.1	16.7	11.9	2.4	12.2	7.2	6.4
1956.....	36.7	30.2	1.8	9.4		3.9	2.0	1.2	9.5	2.5	15.6	8.7	.5	11.2	3.9	3.2
1957.....	35.8	28.6	-4	11.9		2.3	1.5	1.0	9.5	2.8	13.2	7.6	2.1	8.9	2.9	3.8
1958.....	33.4	31.6	3.8	13.9		-2.5	1.5	1.1	10.4	3.5	12.1	3.4	2.3	9.5	.5	6.0
1959.....	35.6	37.4	.8	11.1		10.1	6	-4	11.9	3.3	15.9	6.9	3.4	12.8	8.0	7.2
1960.....	35.6	32.5	1.0	12.1		2.4	-5	2.4	11.5	3.6	14.3	6.7	3.1	11.7	4.4	4.8
1961.....	34.1	35.9	-9	18.3		1.8	3	1	12.1	4.3	12.0	4.1	3.3	12.2	2.5	6.5
1962.....	40.3	40.6	-1.2	26.1		1.8	-2.0	1	12.7	3.2	12.8	8.2	6.3	14.1	6.3	7.2
1963.....	45.2	47.3	4.2	26.3		1.2	-2.6	1.4	13.9	2.9	13.4	11.8	8.5	16.2	8.9	10.6
1964.....	55.7	56.1	5.2	26.1		5.1	-1	4	16.1	3.2	13.9	15.1	7.7	17.5	9.8	9.8
1965.....	63.8	59.0	7.5	27.8		3.9	-2.1	1.3	16.9	3.7	13.4	20.2	11.2	17.0	10.6	12.6
1966.....	72.1	58.4	2.4	19.0		11.7	-.6	2.4	19.2	4.4	12.6	22.8	9.4	13.8	6.5	10.8
1967.....	77.6	70.4	9.9	35.3		7	-4.2	4.8	18.6	6.7	10.9	20.9	8.5	12.5	5.7	15.0
1968.....	82.2	76.2	11.1	31.1		5.7	-6.4	6.8	19.8	8.1	14.3	26.3	9.4	17.1	11.5	15.3
1969.....	73.7	64.5	-2.5	9.1		25.3	-3.6	10.7	21.5	4.0	14.2	26.2	11.4	18.5	10.8	13.3
1970.....	86.1	78.8	8.9	43.6		-7.2	-1.5	5.7	23.9	5.4	11.7	20.2	9.8	14.1	5.4	14.8
1971.....	98.7	103.0	12.2	67.8		-10.1	-5.1	5.0	27.4	5.8	18.8	26.2	13.5	26.4	14.7	21.7
1972.....	116.3	128.8	13.9	74.5		1.9	-5.6	3.3	29.4	11.4	26.0	35.1	17.7	41.5	19.8	29.9
1973.....	138.4	148.5	14.1	63.8		24.1	-6.7	11.2	33.0	9.1	28.2	41.1	20.3	47.1	26.0	26.5
1974.....	128.9	142.4	7.1	55.9	2.4	27.7	-2.2	6.8	36.2	8.5	23.1	28.6	2.8	35.4	9.9	22.7
1975.....	150.0	167.2	4.0	84.0	1.3	23.0	-3.5	3.9	43.5	11.0	20.8	26.6	-.2	38.1	9.7	16.7
1976.....	164.6	208.1	14.9	109.3	-.0	12.1	-3.2	2.7	52.6	19.7	33.1	40.6	-1.0	61.3	25.6	29.2
1977.....	172.8	241.7	22.7	109.2	2	18.3	-6.1	6.3	65.3	25.8	48.1	50.9	5.9	93.2	40.6	40.0
1978.....	198.2	275.3	18.3	105.2	6.9	30.3	-6.2	13.2	77.9	29.7	59.2	57.5	6.9	103.8	50.6	46.2
1979.....	198.8	291.6	14.2	81.0	34.4	50.3	-11.9	16.0	74.7	32.9	55.6	52.6	10.5	110.2	44.2	57.2
1978:																
I.....	176.6	243.4	26.7	91.2	6.9	35.3	-8.8	2.8	71.0	25.4	56.6	48.1	5.3	95.3	43.4	38.1
II.....	196.7	286.4	17.2	113.7	5.4	32.5	-.7	1.8	73.2	31.3	58.3	59.5	5.2	102.8	56.9	53.0
III.....	205.4	288.6	14.7	117.1	5.8	26.5	-5.1	6.6	90.7	32.4	59.8	58.8	6.7	104.1	48.8	55.7
IV.....	214.2	282.9	14.7	98.8	9.6	27.1	-10.2	36.8	76.4	29.8	62.0	63.4	10.4	113.2	53.3	38.0
1979:																
I.....	184.4	273.6	-8.3	85.9	28.8	66.5	-7.5	16.0	63.1	29.1	59.3	60.1	8.5	112.3	51.4	53.3
II.....	213.3	305.3	23.7	67.8	31.6	60.7	-10.6	16.7	81.1	34.3	56.9	50.8	9.7	110.8	45.2	53.4
III.....	204.2	313.3	31.3	103.5	33.1	22.5	-14.3	26.0	76.7	34.4	54.3	50.8	10.3	108.5	46.9	69.0
IV.....	193.2	271.1	9.8	66.7	44.1	51.3	-15.0	4.7	77.8	31.6	52.0	48.5	13.7	109.3	31.1	51.8
1980:																
I.....	221.6	311.9	-4.5	82.7	61.3	84.3	-17.4	-6.1	76.8	34.7	45.7	47.8	7.5	104.4	25.9	61.0
II.....	220.1	232.8	-3.9	106.1	62.5	-39.6	7.8	-17.5	91.7	25.8	35.2	18.6	-5.3	56.5	-44.2	48.9
III.....	215.1	314.8	27.7	122.8	5.1	38.1	-9.2	6.0	89.9	34.5	22.9	27.3	-2.6	77.2	6.1	64.1

- ¹ Saving by households, personal trust funds, nonprofit institutions, farms, and other noncorporate business.
² Consists of U.S. savings bonds, other U.S. Treasury securities, U.S. Government agency securities and sponsored agency securities, and State and local obligations.
³ Includes investment company shares.
⁴ Corporate and foreign bonds and open market paper.
⁵ Private life insurance reserves, private insured and noninsured pension reserves, and government insurance and pension reserves.
⁶ Noncorporate business proprietors' equity, etc.
⁷ Includes data for corporate farms.
⁸ Other debt consists of security credit, policy loans, noncorporate business mortgage debt, and other debt.

Source: Board of Governors of the Federal Reserve System.

TABLE B-25.—Money income (in 1979 dollars) and poverty status of families and unrelated individuals by race of householder, 1952–79

Year	Total				White				Black			
	Total number (mil- lions)	Median income	Percent with incomes—		Total number (mil- lions)	Median income	Percent with incomes—		Total number (mil- lions)	Median income	Percent with incomes—	
			Below poverty level	\$25,000 and over			Below poverty level	\$25,000 and over			Below poverty level	\$25,000 and over
FAMILIES ¹												
1952	40.8	\$10,638		5.5		\$11,250		6.2		\$6,394		20.9
1953	41.2	11,513		7.1		11,937		7.5		6,693		21.1
1954	42.0	11,254		7.3	38.2	11,715		7.9	3.8	6,525		21.2
1955	42.9	11,976		8.0	39.0	12,505		8.8	3.9	6,896		21.9
1956	43.5	12,766		9.7	39.5	13,359		10.5	4.0	7,029		21.5
1957	43.7	12,807		9.3	39.7	13,328		10.0	4.0	7,126		21.5
1958	44.2	12,770		10.1	40.2	13,305		10.9	4.0	6,816		22.4
1959	45.1	13,490	18.5	12.2	40.9	14,053	15.2	13.1	4.2	7,259	48.1	22.4
1960	45.5	13,774	18.1	13.4	41.1	14,301	14.9	14.3	4.3	7,742	49.0	24.4
1961	46.4	13,915	18.1	14.5	41.9	14,512	14.8	15.7	4.5	7,986	49.0	25.0
1962	47.1	14,292	17.2	15.5	42.4	14,966	13.9	16.8	4.6	7,986	48.0	24.3
1963	47.5	14,815	15.9	17.0	42.7	15,524	12.8	18.4	4.8	8,215	43.7	24.8
1964	48.0	15,372	15.0	18.6	43.1	16,049	12.2	19.8	4.8	8,982	40.0	26.4
1965	48.5	16,005	13.9	20.1	43.5	16,681	11.1	21.6	4.8	9,186	39.7	26.7
1966	49.2	16,846	11.8	22.6	44.1	17,502	9.3	24.2	5.0	10,492	35.5	28.2
1967	50.1	17,246	11.4	24.4	44.8	17,901	9.0	25.9	4.6	10,598	33.9	29.2
1968	50.8	18,010	10.0	27.4	45.4	18,646	8.0	29.0	4.6	11,183	29.4	31.3
1969	51.6	18,677	9.7	29.3	46.0	19,392	7.7	31.0	4.8	11,878	27.9	32.1
1970	52.2	18,444	10.1	28.7	46.5	19,134	8.0	30.4	4.9	11,737	29.5	33.1
1971	53.3	18,433	10.0	28.9	47.6	19,127	7.9	30.5	5.2	11,542	28.8	32.7
1972	54.4	19,287	9.3	32.5	48.5	20,038	7.1	34.4	5.3	11,909	29.0	35.7
1973	55.1	19,684	8.8	33.6	48.9	20,572	6.6	35.7	5.4	11,873	28.1	36.6
1974	55.7	18,893	9.2	29.4	49.5	19,659	7.0	31.2	5.5	11,493	27.8	32.5
1974*	55.7	18,990	8.8	32.3	49.4	19,735	6.8	34.1	5.5	11,784	26.9	34.8
1975	56.2	18,502	9.7	30.4	49.9	19,242	7.7	32.2	5.6	11,840	27.1	33.7
1976	56.7	19,073	9.4	31.9	50.1	19,811	7.1	34.0	5.8	11,784	27.9	34.9
1977	57.2	19,176	9.3	33.1	50.5	20,051	7.0	35.1	5.8	11,455	28.2	35.2
1978	57.8	19,626	9.1	34.0	50.9	20,436	6.9	36.0	5.9	12,104	27.5	37.2
1979*	58.4	19,684	9.1	34.7	51.4	20,524	6.8	36.7	6.0	11,648	27.6	37.0
UNRELATED INDIVIDUALS ²												
			Below poverty level	\$15,000 and over			Below poverty level	\$15,000 and over			Below poverty level	\$15,000 and over
1952	9.7	\$3,853		3.6		4,154		3.8		\$2,874		21.0
1953	9.5	3,789		3.8		3,998		4.5		3,143		21.3
1954	9.7	3,300		3.7	8.3	3,551		4.2	1.4	2,358		21.5
1955	9.9	3,570		4.3	8.5	3,795		4.9	1.4	2,535		21.4
1956	9.8	3,809		4.5	8.5	3,910		5.0	1.3	2,903		21.1
1957	10.4	3,850		5.8	8.9	4,121		6.8	1.5	2,618		21.9
1958	10.9	3,730		6.6	9.2	3,997		7.3	1.6	2,711		21.5
1959	10.9	3,877	46.1	6.7	9.3	4,144	44.1	7.5	1.6	2,677	57.0	22.4
1960	11.1	4,216	45.2	7.2	9.6	4,559	43.0	7.8	1.5	2,618	59.3	22.4
1961	11.2	4,256	45.9	8.7	9.6	4,574	43.2	9.5	1.6	2,807	62.7	23.0
1962	11.0	4,206	45.4	9.7	9.5	4,502	42.7	10.7	1.5	3,004	62.1	23.4
1963	11.2	4,267	44.2	10.4	9.7	4,474	42.0	11.6	1.5	3,070	58.3	23.3
1964	12.1	4,641	42.7	11.2	10.4	4,886	40.7	12.2	1.6	3,349	55.0	25.1
1965	12.2	4,953	39.8	12.2	10.5	5,165	38.1	13.4	1.7	3,766	50.7	25.2
1966	12.5	5,122	38.3	12.1	10.7	5,386	36.1	13.3	1.6	3,386	54.4	24.6
1967	13.2	5,172	38.1	13.4	11.3	5,370	36.5	14.5	1.6	3,826	49.3	25.6
1968	13.9	5,813	34.0	15.9	12.0	6,159	32.2	17.0	1.7	4,098	46.3	27.3
1969	14.6	5,803	34.0	15.3	12.5	6,094	32.1	16.7	1.8	4,170	46.7	26.2
1970	15.5	5,864	32.9	16.2	13.4	6,137	30.8	17.4	1.7	3,957	48.3	27.2
1971	16.3	5,943	31.6	16.1	14.2	6,210	29.6	17.3	1.9	4,033	46.0	27.5
1972	16.8	6,109	29.0	17.1	14.5	6,380	27.1	17.9	2.0	4,457	42.9	30.1
1973	18.3	6,752	25.6	18.6	15.8	6,974	23.7	19.6	2.2	5,153	37.9	32.4
1974	18.9	6,534	25.5	17.1	16.3	6,824	23.2	18.1	2.3	4,503	41.0	30.0
1974*	18.9	6,775	24.1	17.8	16.3	7,020	21.8	18.9	2.4	4,735	39.3	31.1
1975	20.2	6,584	25.1	16.9	17.5	6,877	22.7	18.0	2.4	4,433	42.1	30.2
1976	21.5	6,854	24.9	17.8	18.6	7,148	22.7	19.0	2.6	4,806	39.8	30.8
1977	23.1	7,075	22.6	18.9	19.9	7,344	20.4	19.9	2.9	5,313	37.0	32.5
1978	24.6	7,460	22.1	20.2	21.3	7,822	19.8	21.0	2.9	4,908	38.6	33.4
1979	25.6	7,578	21.8	20.5	22.1	7,855	19.6	21.4	3.1	5,444	36.9	34.6

¹ The term "family" refers to a group of two or more persons related by blood, marriage, or adoption and residing together; all such persons are considered members of the same family.

² Data for "black" include "other" races.

³ Revised using population controls based on the 1970 census. Such controls are not available by race.

⁴ Based on revised methodology; comparable with succeeding years.

⁵ Based on householder concept. Restricted to primary families.

The term "unrelated individuals" refers to persons 15 years old and over as of March 1980 and 14 years old and over for previous years (other than inmates of institutions) who are not living with any relatives.

Note.—The poverty level is based on the poverty index adopted by a Federal interagency committee in 1969. That index reflects different consumption requirements for families based on size and composition, sex and age of family householder, and farm-nonfarm residence. The poverty thresholds are updated every year to reflect changes in the consumer price index. For further details see "Current Population Reports," Series P-60, Nos. 123, 124, and 125.

Source: Department of Commerce, Bureau of the Census.

TABLE B-26.—Population by age groups, 1929-80

[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.....	204,878	17,148	44,774	15,275	17,184	48,435	41,975	20,087
1971.....	207,053	17,177	44,441	15,635	18,089	48,811	42,413	20,488
1972.....	208,846	16,990	43,948	15,946	18,032	50,254	42,785	20,892
1973.....	210,410	16,694	43,227	16,310	18,345	51,411	43,077	21,346
1974.....	211,901	16,288	42,538	16,590	18,741	52,593	43,319	21,833
1975.....	213,559	15,879	41,956	16,793	19,229	53,735	43,546	22,420
1976.....	215,152	15,345	41,459	16,928	19,630	55,129	43,707	22,954
1977.....	216,880	15,248	40,575	16,966	20,077	56,706	43,795	23,513
1978.....	218,717	15,378	39,623	16,935	20,461	58,380	43,876	24,064
1979.....	220,584	15,649	38,643	16,838	20,726	60,161	43,910	24,658
1980.....	222,807	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)

¹ Not available.

Note.—Includes Armed Forces overseas beginning 1940. Includes Alaska and Hawaii beginning 1950. Data from 1980 census not yet available.

Source: Department of Commerce, Bureau of the Census.

TABLE B-27.—Noninstitutional population and the labor force, 1929-80

(Monthly data seasonally adjusted, except as noted)

Year or month	Noninstitutional population ¹	Armed Forces ²	Civilian labor force					Unemployment rate (percent of civilian labor force)	Civilian labor force participation rate ³		
			Total	Employment			Unemployment		Total	Males	Females
				Total	Agri-cultural	Nonagri-cultural					
Thousands of persons 14 years of age and over								Percent			
1929		260	49,180	47,630	10,450	37,180	1,550	3.2			
1933		250	51,590	38,760	10,090	28,670	12,830	24.9			
1939		370	55,230	45,750	9,610	36,140	9,480	17.2			
1940	100,380	540	55,640	47,520	9,540	37,980	8,120	14.6	55.7	83.7	28.2
1941	101,520	1,620	55,910	50,350	9,100	41,250	5,560	9.9	56.0	84.3	28.7
1942	102,610	3,970	56,410	53,750	9,250	44,500	2,660	4.7	57.2	85.6	31.3
1943	103,660	9,020	55,540	54,470	9,080	45,390	1,070	1.9	58.7	86.4	36.0
1944	104,630	11,410	54,630	53,960	8,950	45,010	670	1.2	58.6	87.0	36.5
1945	105,530	11,440	53,860	52,820	8,580	44,240	1,040	1.9	57.2	84.8	35.9
1946	106,520	3,450	57,520	55,250	8,320	46,930	2,270	3.9	55.8	82.6	31.2
1947	107,608	1,590	60,168	57,812	8,256	49,557	2,356	3.9	56.8	84.0	31.0
Thousands of persons 16 years of age and over											
1947	103,418	1,591	59,350	57,038	7,890	49,148	2,311	3.9	58.3	86.4	31.8
1948	104,527	1,459	60,621	58,343	7,629	50,714	2,276	3.8	58.8	86.6	32.7
1949	105,611	1,617	61,286	57,651	7,658	49,993	3,637	5.9	58.9	86.4	33.1
1950	106,645	1,650	62,208	58,918	7,160	51,758	3,288	5.3	59.2	86.4	33.9
1951	107,721	3,100	62,017	59,961	6,726	53,235	2,055	3.3	59.3	86.5	34.6
1952	108,823	3,592	62,138	60,250	6,500	53,749	1,883	3.0	59.0	86.3	34.7
1953 ^a	110,601	3,545	63,015	61,179	6,260	54,919	1,834	2.9	58.9	86.0	34.4
1954	111,671	3,350	63,643	60,109	6,205	53,904	3,532	5.5	58.8	85.5	34.6
1955	112,732	3,049	65,023	62,170	6,450	55,722	2,852	4.4	59.3	85.3	35.7
1956	113,811	2,857	66,552	63,799	6,283	57,514	2,750	4.1	60.0	85.5	36.9
1957	115,065	2,800	66,929	64,071	5,947	58,123	2,859	4.3	59.6	84.8	36.9
1958	116,363	2,636	67,639	63,036	5,586	57,450	4,602	6.8	59.5	84.2	37.1
1959	117,881	2,552	68,369	64,630	5,565	59,065	3,740	5.5	59.3	83.7	37.1
1960 ^a	119,759	2,514	69,628	65,778	5,458	60,318	3,852	5.5	59.4	83.3	37.7
1961	121,343	2,572	70,459	65,746	5,200	60,546	4,714	6.7	59.3	82.9	38.1
1962 ^a	122,981	2,828	70,614	66,702	4,944	61,759	3,911	5.5	58.8	82.0	37.9
1963	125,154	2,738	71,833	67,762	4,687	63,076	4,070	5.7	58.7	81.4	38.3
1964	127,224	2,739	73,091	69,305	4,523	64,782	3,786	5.2	58.7	81.0	38.7
1965	129,236	2,723	74,455	71,088	4,361	66,726	3,366	4.5	58.9	80.7	39.3
1966	131,180	3,123	75,770	72,895	3,979	68,915	2,875	3.8	59.2	80.4	40.3
1967	133,319	3,446	77,347	74,372	3,844	70,527	2,975	3.8	59.6	80.4	41.1
1968	135,562	3,535	78,737	75,920	3,817	72,103	2,817	3.6	59.6	80.1	41.6
1969	137,841	3,506	80,734	77,902	3,606	74,296	2,832	3.5	60.1	79.8	42.7
1970	140,182	3,188	82,715	78,627	3,462	75,165	4,088	4.9	60.4	79.7	43.3
1971	142,596	2,816	84,113	79,120	3,387	75,732	4,993	5.9	60.2	79.1	43.3
1972 ^a	145,775	2,449	85,542	81,702	3,472	78,230	4,840	5.6	60.4	79.0	43.9
1973 ^a	148,263	2,326	88,714	84,409	3,452	80,957	4,304	4.9	60.8	78.8	44.7
1974	150,827	2,229	91,011	85,935	3,492	82,443	5,076	5.6	61.2	78.7	45.6
1975	153,449	2,180	92,613	84,783	3,380	81,403	7,830	8.5	61.2	77.9	46.3
1976	156,048	2,144	94,773	87,485	3,297	84,188	7,288	7.7	61.6	77.5	47.3
1977	158,559	2,133	97,401	90,546	3,244	87,302	6,855	7.0	62.3	77.7	48.4
1978 ^a	161,058	2,117	100,420	94,373	3,342	91,031	6,047	6.0	63.2	77.9	50.0
1979	163,620	2,088	102,908	96,945	3,297	93,648	5,963	5.8	63.7	77.9	51.0
1980	166,246	2,102	104,719	97,270	3,310	93,960	7,448	7.1	63.8	77.4	51.6

See next page for continuation of table.

TABLE B-27.—Noninstitutional population and the labor force, 1929-80—Continued

(Monthly data seasonally adjusted, except as noted)

Year or month	Noninstitutional population ¹	Armed Forces ¹	Civilian labor force					Unemployment rate (percent of civilian labor force)	Civilian labor force participation rate ²		
			Total	Employment			Unemployment		Total	Males	Females
				Total	Agri-cultural	Nonagri-cultural					
Thousands of persons 16 years of age and over								Percent			
1978: ³											
Jan	159,937	2,121	99,101	92,752	3,400	89,352	6,349	6.4	62.8	77.9	49.2
Feb	160,128	2,124	99,031	92,863	3,276	89,587	6,168	6.2	62.7	77.7	49.2
Mar	160,313	2,122	99,336	93,133	3,305	89,828	6,203	6.2	62.8	77.8	49.4
Apr	160,504	2,118	99,823	93,780	3,305	90,475	6,043	6.1	63.0	77.8	49.7
May	160,713	2,113	100,201	94,177	3,282	90,895	6,024	6.0	63.2	77.9	49.9
June	160,928	2,098	100,507	94,680	3,436	91,244	5,827	5.8	63.3	77.9	50.1
July	161,148	2,116	100,603	94,494	3,392	91,102	6,109	6.1	63.3	77.8	50.2
Aug	161,348	2,122	100,719	94,837	3,360	91,477	5,882	5.8	63.3	77.8	50.2
Sept	161,570	2,123	100,937	94,991	3,356	91,635	5,946	5.9	63.3	77.7	50.4
Oct	161,829	2,122	101,171	95,374	3,365	92,009	5,797	5.7	63.3	77.8	50.4
Nov	162,033	2,117	101,576	95,653	3,236	92,417	5,923	5.8	63.5	78.0	50.5
Dec	162,250	2,108	101,831	95,715	3,346	92,369	6,116	6.0	63.6	78.1	50.6
1979:											
Jan	162,448	2,094	102,014	96,056	3,275	92,781	5,958	5.8	63.6	78.2	50.5
Feb	162,633	2,094	102,393	96,400	3,312	93,088	5,993	5.9	63.8	78.2	50.8
Mar	162,909	2,090	102,578	96,622	3,304	93,318	5,956	5.8	63.8	78.0	51.0
Apr	163,008	2,082	102,213	96,295	3,234	93,061	5,918	5.8	63.5	77.9	50.6
May	163,260	2,078	102,366	96,590	3,226	93,364	5,776	5.6	63.5	77.8	50.7
June	163,469	2,076	102,556	96,838	3,276	93,562	5,718	5.6	63.5	77.7	50.8
July	163,685	2,082	103,015	97,277	3,282	93,995	5,738	5.6	63.7	77.9	51.0
Aug	163,891	2,090	103,105	97,048	3,342	93,706	6,057	5.9	63.7	77.7	51.2
Sept	164,106	2,092	103,492	97,521	3,332	94,189	5,971	5.8	63.9	78.0	51.2
Oct	164,468	2,093	103,566	97,434	3,281	94,153	6,132	5.9	63.8	77.7	51.3
Nov	164,682	2,092	103,605	97,501	3,378	94,123	6,104	5.9	63.7	77.5	51.3
Dec	164,898	2,089	104,053	97,781	3,323	94,458	6,272	6.0	63.9	77.7	51.5
1980:											
Jan	165,101	2,081	104,208	97,708	3,287	94,421	6,500	6.2	63.9	77.6	51.6
Feb	165,298	2,086	104,271	97,817	3,329	94,488	6,454	6.2	63.9	77.7	51.5
Mar	165,506	2,090	104,171	97,628	3,337	94,291	6,543	6.3	63.7	77.5	51.3
Apr	165,693	2,092	104,427	97,225	3,262	93,963	7,202	6.9	63.8	77.5	51.5
May	165,886	2,088	105,060	97,116	3,352	93,764	7,944	7.6	64.1	78.0	51.7
June	166,105	2,092	104,591	96,780	3,232	93,548	7,811	7.5	63.8	77.4	51.5
July	166,391	2,099	105,020	96,999	3,267	93,732	8,021	7.6	63.9	77.5	51.7
Aug	166,578	2,114	104,945	97,003	3,210	93,793	7,942	7.6	63.8	77.3	51.7
Sept	166,789	2,121	104,980	97,180	3,399	93,781	7,800	7.4	63.8	77.4	51.5
Oct	167,005	2,121	105,167	97,206	3,319	93,887	7,961	7.6	63.8	77.4	51.6
Nov	167,201	2,119	105,285	97,339	3,340	93,999	7,946	7.5	63.8	77.3	51.6
Dec	167,396	2,124	105,067	97,282	3,394	93,888	7,785	7.4	63.6	77.0	51.5

¹ Not seasonally adjusted.² Civilian labor force as percent of civilian noninstitutional population.

³ 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 about 350,000 to labor force, total employment, and agricultural employment. Beginning 1960, inclusion of Alaska and Hawaii added about 500,000 to population, about 300,000 to labor force, and about 240,000 to nonagricultural employment. Beginning 1962, introduction of 1960 census data reduced population by about 50,000 and labor force and employment by about 200,000. Beginning 1972, introduction of 1970 census data added about 800,000 to civilian noninstitutional population and about 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.

Note.—Labor force data in Tables B-27 through B-33 are based on household interviews and relate to the calendar week including the 12th of the month. For definitions of terms, area samples used, historic comparability of the data, comparability with other series, etc., see "Employment and Earnings."

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B-28.—Civilian employment and unemployment by sex and age, 1947-80

(Thousands of persons 16 years of age and over; monthly data seasonally adjusted)

Year or month	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
1947	57,038	40,995	2,218	38,776	16,045	1,691	14,354	2,311	1,692	270	1,422	619	144	475
1948	58,343	41,725	2,345	39,382	16,617	1,683	14,937	2,276	1,559	255	1,305	717	152	564
1949	57,651	40,925	2,124	38,803	16,723	1,588	15,137	3,637	2,572	352	2,219	1,065	223	841
1950	58,918	41,578	2,186	39,394	17,340	1,517	15,824	3,288	2,239	318	1,922	1,049	195	854
1951	59,961	41,780	2,156	39,626	18,181	1,611	16,570	2,055	1,221	191	1,029	834	145	689
1952	60,250	41,682	2,106	39,578	18,568	1,612	16,958	1,883	1,185	205	980	698	140	559
1953 ¹	61,179	42,430	2,135	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	1,548	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	2,117	41,239	20,714	1,663	19,052	2,859	1,841	299	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 ¹	65,778	43,904	2,360	41,543	21,874	1,769	20,105	3,852	2,486	425	2,060	1,366	286	1,080
1961	65,746	43,656	2,314	41,342	22,099	1,793	20,296	4,714	2,997	479	2,518	1,717	349	1,368
1962 ¹	66,702	44,177	2,362	41,815	22,525	1,833	20,693	3,911	2,423	407	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	500	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	386	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	3,252	43,668	25,976	2,469	23,510	2,875	1,551	432	1,120	1,324	404	921
1967	74,372	47,479	3,186	44,293	26,893	2,497	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	2,525	25,281	2,817	1,419	427	993	1,397	412	985
1969	77,902	48,818	3,430	45,388	29,084	2,686	26,397	2,832	1,403	441	963	1,429	412	1,016
1970	78,627	48,960	3,407	45,553	29,667	2,734	26,933	4,088	2,235	599	1,636	1,853	506	1,347
1971	79,120	49,245	3,470	45,775	29,875	2,725	27,149	4,993	2,776	691	2,086	2,217	567	1,650
1972 ¹	81,702	50,630	3,750	46,880	31,072	2,972	28,100	4,840	2,635	707	1,928	2,205	595	1,610
1973 ¹	84,409	51,963	4,017	47,946	32,446	3,219	29,228	4,304	2,240	647	1,594	2,064	579	1,485
1974	85,935	52,518	4,074	48,445	33,417	3,329	30,088	5,076	2,668	749	1,918	2,408	660	1,748
1975	84,783	51,230	3,803	47,427	33,553	3,243	30,310	7,830	4,385	957	3,428	3,445	795	2,649
1976	87,485	52,391	3,904	48,486	35,095	3,365	31,730	7,288	3,968	928	3,041	3,320	773	2,546
1977	90,546	53,861	4,124	49,737	36,585	3,486	33,199	8,855	3,588	861	2,727	3,267	781	2,486
1978 ¹	94,373	55,491	4,279	51,212	38,882	3,702	35,180	6,047	3,051	799	2,252	2,996	760	2,236
1979	96,945	56,499	4,236	52,264	40,446	3,748	36,698	5,963	3,018	795	2,223	2,945	733	2,213
1980	97,270	55,988	4,016	51,972	41,283	3,587	37,696	7,448	4,157	896	3,261	3,291	744	2,547
1979:														
Jan.....	96,056	56,293	4,292	52,001	39,763	3,794	35,969	5,958	3,036	835	2,201	2,922	717	2,205
Feb.....	96,400	56,396	4,264	52,132	40,004	3,831	36,173	5,993	3,024	836	2,188	2,969	718	2,251
Mar.....	96,622	56,379	4,267	52,112	40,243	3,841	36,402	5,956	3,009	821	2,188	2,947	701	2,246
Apr.....	96,295	56,322	4,237	52,085	39,973	3,762	36,211	5,918	2,980	815	2,165	2,938	760	2,178
May.....	96,590	56,426	4,224	52,202	40,164	3,727	36,437	5,776	2,888	805	2,083	2,888	741	2,147
June.....	96,838	56,586	4,299	52,287	40,252	3,731	36,521	5,718	2,801	704	2,097	2,917	740	2,177
July.....	97,277	56,667	4,260	52,407	40,610	3,742	36,868	5,738	2,932	755	2,177	2,806	684	2,122
Aug.....	97,048	56,473	4,123	52,350	40,575	3,621	36,954	6,057	3,023	788	2,235	3,034	731	2,303
Sept.....	97,521	56,780	4,260	52,520	40,741	3,693	37,048	5,971	3,056	824	2,232	2,915	735	2,180
Oct.....	97,434	56,594	4,179	52,415	40,840	3,715	37,125	6,132	3,101	768	2,333	3,031	791	2,240
Nov.....	97,501	56,505	4,205	52,300	40,986	3,762	37,234	6,104	3,169	784	2,385	2,935	721	2,214
Dec.....	97,781	56,617	4,253	52,364	41,164	3,743	37,421	6,272	3,241	806	2,435	3,031	755	2,276
1980:														
Jan.....	97,708	56,458	4,195	52,263	41,250	3,712	37,538	6,500	3,448	819	2,629	3,052	738	2,314
Feb.....	97,817	56,631	4,195	52,436	41,186	3,626	37,560	6,454	3,378	797	2,581	3,076	765	2,311
Mar.....	97,628	56,489	4,259	52,230	41,139	3,589	37,550	6,543	3,500	764	2,736	3,043	748	2,295
Apr.....	97,225	56,054	4,119	51,935	41,171	3,574	37,597	7,202	3,994	802	3,192	3,208	707	2,501
May.....	97,116	55,914	4,043	51,871	41,202	3,602	37,600	7,944	4,453	974	3,569	3,401	808	2,593
June.....	96,780	55,597	3,973	51,624	41,183	3,570	37,613	7,811	4,496	938	3,558	3,315	746	2,569
July.....	96,999	55,678	3,964	51,714	41,321	3,593	37,728	8,021	4,593	963	3,630	3,428	773	2,655
Aug.....	97,003	55,589	3,988	51,791	41,414	3,524	37,890	7,942	4,558	946	3,612	3,384	751	2,633
Sept.....	97,180	55,754	3,931	51,823	41,426	3,622	37,804	7,800	4,566	914	3,652	3,234	721	2,513
Oct.....	97,206	55,881	3,918	51,863	41,325	3,571	37,754	7,961	4,498	966	3,532	3,463	731	2,732
Nov.....	97,339	55,897	3,890	52,007	41,442	3,533	37,909	7,946	4,491	959	3,532	3,455	735	2,720
Dec.....	97,282	55,920	3,875	52,045	41,362	3,542	37,820	7,785	4,334	909	3,425	3,451	701	2,750

¹ See footnote 3, Table B-27.

Note.—See Note, Table B-27.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B-29.—Selected employment and unemployment data, 1948-80

[Percent; ¹ monthly data seasonally adjusted]

Year or month	Unemployment rate ¹									Employment as percent of population ⁵		
	All workers	By sex and age			By selected groups					Total	White	Black and other
		Both sexes 16-19 years	Males 20 years and over	Females 20 years and over	Experienced wage and salary workers	Married men ²	Women who maintain families	Full-time workers ³	Blue-collar workers ⁴			
1948	3.8	9.2	3.2	3.6	4.3				4.2	55.8		
1949	5.9	13.4	5.4	5.3	6.8	3.5		5.4	8.0	54.6		
1950	5.3	12.2	4.7	5.1	6.0	4.6		5.0	7.2	55.2		
1951	3.3	8.2	2.5	4.0	3.7	1.5		2.6	3.9	55.7		
1952	3.0	8.5	2.4	3.2	3.3	1.4		2.5	3.6	55.4		
1953	2.9	7.6	2.5	2.9	3.2	1.7			3.4	55.3		
1954	5.5	12.6	4.9	5.5	6.2	4.0		5.2	7.2	53.8		
1955	4.4	11.0	3.8	4.4	4.8	2.8		3.8	5.8	55.1		
1956	4.1	11.1	3.4	4.2	4.4	2.6		3.7	5.1	56.1		
1957	4.3	11.6	3.6	4.1	4.6	2.8		4.0	6.2	55.7		
1958	6.8	15.9	6.2	6.1	7.2	5.1		7.2	10.2	54.2		
1959	5.5	14.6	4.7	5.2	5.7	3.6			7.6	54.8		
1960	5.5	14.7	4.7	5.1	5.7	3.7			7.8	54.9		
1961	6.7	16.8	5.7	6.3	6.8	4.6		6.7	9.2	54.2		
1962	5.5	14.7	4.6	5.4	5.6	3.6			7.4	54.2		
1963	5.7	17.2	4.5	5.4	5.5	3.4		5.5	7.3	54.1	54.0	55.2
1964	5.2	16.2	3.9	5.2	5.0	2.8		4.9	6.3	54.5	54.3	56.1
1965	4.5	14.8	3.2	4.5	4.3	2.4		4.2	5.3	55.0	54.8	56.8
1966	3.8	12.8	2.5	3.8	3.5	1.9		3.5	4.2	55.6	55.4	57.2
1967	3.8	12.9	2.3	4.2	3.6	1.8	4.9	3.4	4.4	55.8	55.7	56.9
1968	3.6	12.7	2.2	3.8	3.4	1.6	4.4	3.1	4.1	56.0	55.9	56.6
1969	3.5	12.2	2.1	3.7	3.3	1.5	4.4	3.1	3.9	56.5	56.5	56.7
1970	4.9	15.2	3.5	4.8	4.8	2.6	5.4	4.5	6.2	56.1	56.2	55.5
1971	5.9	16.9	4.4	5.7	5.7	3.2	7.3	5.5	7.4	55.5	55.7	53.7
1972	5.6	16.2	4.0	5.4	5.3	2.8	7.2	5.1	6.5	56.0	56.4	53.0
1973	4.9	14.5	3.2	4.8	4.5	2.3	7.0	4.3	5.3	56.9	57.3	53.9
1974	5.6	16.0	3.8	5.5	5.3	2.7	7.0	5.1	6.7	57.0	57.5	53.0
1975	8.5	19.9	6.7	8.0	8.2	5.1	10.0	8.1	11.7	55.3	55.9	50.0
1976	7.7	19.0	5.9	7.4	7.3	4.2	10.0	7.3	9.4	56.1	56.8	50.6
1977	7.0	17.7	5.2	7.0	6.6	3.6	9.3	6.5	8.1	57.1	57.9	51.1
1978	6.0	16.3	4.2	6.0	5.6	2.8	8.5	5.5	6.9	58.6	59.3	53.3
1979	5.8	16.1	4.1	5.7	5.4	2.7	8.3	5.3	6.9	59.3	60.0	53.6
1980	7.1	17.7	5.9	6.3	6.8	4.2	9.1	6.8	10.0	58.5	59.5	51.9
1979:												
Jan.	5.8	16.1	4.1	5.8	5.4	3.7	7.9	5.3	6.6	59.1	59.9	53.4
Feb.	5.9	16.1	4.0	5.9	5.4	3.7	8.3	5.4	6.7	59.3	60.1	53.4
Mar.	5.8	15.8	4.0	5.8	5.4	3.6	8.2	5.3	6.7	59.3	60.0	53.9
Apr.	5.8	16.5	4.0	5.7	5.3	3.6	8.0	5.3	6.9	59.1	59.9	53.5
May	5.6	16.3	3.8	5.6	5.3	3.4	8.5	5.1	6.6	59.2	59.9	53.4
June	5.6	15.2	3.9	5.6	5.2	3.5	9.0	5.0	6.4	59.2	60.0	53.8
July	5.6	15.2	4.0	5.4	5.3	3.5	8.1	5.1	6.7	59.4	60.2	54.0
Aug.	5.9	16.4	4.1	5.9	5.6	3.7	8.0	5.3	7.1	59.2	60.0	53.6
Sept.	5.8	16.4	4.1	5.8	5.5	3.6	8.0	5.3	7.0	59.4	60.2	54.0
Oct.	5.9	16.5	4.3	5.7	5.6	3.7	8.4	5.4	7.2	59.2	60.1	53.7
Nov.	5.9	15.9	4.4	5.6	5.6	3.7	8.5	5.4	7.6	59.2	60.0	53.4
Dec.	6.0	16.3	4.4	5.7	5.6	3.8	8.5	5.5	7.5	59.3	60.2	53.3
1980:												
Jan.	6.2	16.5	4.8	5.8	5.9	4.1	9.0	5.8	8.1	59.2	60.1	53.1
Feb.	6.2	16.6	4.7	5.8	5.9	4.1	8.5	5.8	7.9	59.2	60.1	52.8
Mar.	6.3	16.2	5.0	5.8	6.0	4.2	8.6	5.9	8.2	59.0	59.9	52.3
Apr.	6.9	16.4	5.8	6.2	6.6	4.7	9.0	6.5	9.6	58.7	58.6	52.1
May	7.6	18.9	6.4	6.5	7.4	5.2	8.3	7.3	10.9	58.5	59.5	52.0
June	7.5	18.3	6.4	6.4	7.3	5.1	8.5	7.2	11.1	58.3	59.2	51.7
July	7.6	18.7	6.6	6.6	7.4	5.3	8.8	7.4	11.3	58.3	59.2	51.9
Aug.	7.6	18.8	6.5	6.5	7.4	5.3	9.0	7.3	11.1	58.2	59.1	51.8
Sept.	7.4	17.8	6.6	6.2	7.2	5.1	9.0	7.3	10.8	58.3	59.2	51.6
Oct.	7.6	18.5	6.4	6.7	7.3	5.1	10.2	7.3	10.8	58.2	59.2	51.4
Nov.	7.5	18.6	6.4	6.7	7.2	5.0	9.9	7.4	10.7	58.2	59.2	51.5
Dec.	7.4	17.8	6.2	6.8	7.1	4.9	10.4	7.3	10.5	58.1	59.1	51.3

¹ Unemployment as percent of civilian labor force in group specified.² Married men living with their wives. Data for 1949 and 1951-54 are for April; 1950, for March.³ Data for 1949-61 are for May.⁴ Includes craft and kindred workers, operatives, and nonfarm laborers. Data for 1948-57 are based on data for January, April, July, and October.⁵ Civilian employment as percent of total noninstitutional population.

Note.—See footnote 3 and Note, Table B-27.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B-30.—Civilian labor force participation rate by demographic characteristic, 1954-80

(Percent¹, monthly data seasonally adjusted)

Year or month	All work- ers	White						Black and other							
		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
1954.....	58.8	58.2	85.6	57.6	87.8	33.3	40.6	32.7	64.3	85.2	61.2	87.1	46.1	31.0	47.7
1955.....	59.3	58.7	85.4	58.6	87.5	34.5	40.7	34.0	64.2	85.0	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	84.3	58.8	87.0	47.2	33.2	48.6
1958.....	59.5	58.9	84.3	56.5	86.6	35.8	40.1	35.5	64.8	84.0	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	80.0	49.9	84.1	48.5	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	49.3	33.5	51.6
1967.....	59.6	59.2	80.7	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	77.6	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	47.3	81.4	49.5	34.0	51.7
1971.....	60.2	60.1	79.6	57.9	82.3	42.6	45.5	42.3	60.9	74.9	44.7	79.9	49.2	31.3	51.8
1972.....	60.4	60.4	79.6	60.1	82.0	43.2	48.2	42.7	60.0	73.7	46.0	78.5	48.7	32.2	51.1
1973.....	60.8	60.9	79.5	62.0	81.6	44.1	50.1	43.5	60.3	73.8	46.3	78.4	49.1	34.4	51.3
1974.....	61.2	61.4	79.4	63.0	81.4	45.2	51.8	44.4	60.0	73.3	47.2	77.7	49.1	34.1	51.3
1975.....	61.2	61.5	78.7	61.9	80.7	45.9	51.6	45.3	59.3	71.5	42.7	76.4	49.2	35.6	51.2
1976.....	61.6	61.9	78.4	62.4	80.3	46.9	52.9	46.2	59.4	70.7	42.1	75.6	50.2	33.5	52.6
1977.....	62.3	62.6	78.5	64.1	80.3	48.1	54.7	47.4	60.0	71.0	43.4	75.6	50.9	33.6	53.4
1978.....	63.2	63.4	78.6	65.1	80.2	49.5	56.9	48.7	61.8	72.1	45.4	76.5	53.3	38.1	55.5
1979.....	63.7	64.0	78.6	64.8	80.2	50.6	57.6	49.9	61.8	71.9	43.9	76.4	53.5	38.0	55.6
1980.....	63.8	64.2	78.3	63.8	79.9	51.3	56.4	50.8	61.2	70.8	43.3	75.1	53.4	35.9	55.8
1979:															
Jan.....	63.6	63.9	79.0	66.1	80.5	50.2	57.8	49.4	61.5	71.9	44.9	76.2	53.0	38.5	55.0
Feb.....	63.8	64.0	79.0	65.2	80.5	50.4	58.3	49.6	61.9	72.3	46.5	76.4	53.4	39.6	55.3
Mar.....	63.8	64.0	78.8	65.3	80.3	50.5	58.5	49.7	62.2	72.5	46.8	76.6	53.8	37.2	56.0
Apr.....	63.5	63.8	78.6	64.8	80.2	50.2	57.8	49.4	61.9	71.9	45.1	76.2	53.7	41.4	55.4
May.....	63.5	63.8	78.5	64.4	80.1	50.4	57.3	49.6	61.5	71.9	45.0	76.2	53.0	37.1	55.2
June.....	63.5	63.8	78.6	64.3	80.2	50.4	57.4	49.7	61.8	72.1	43.5	76.6	53.5	36.9	55.7
July.....	63.7	64.0	78.7	64.3	80.3	50.6	57.2	50.0	61.8	72.0	41.8	76.9	53.4	37.1	55.6
Aug.....	63.7	64.0	78.5	63.4	80.2	50.8	56.3	50.2	61.7	72.2	45.2	76.5	53.1	34.6	55.6
Sept.....	63.9	64.2	78.7	65.5	80.2	50.9	57.3	50.2	61.9	72.5	43.1	77.2	53.1	36.5	55.4
Oct.....	63.8	64.1	78.4	63.9	80.1	51.0	57.8	50.3	62.0	71.9	42.5	76.6	54.0	38.7	56.1
Nov.....	63.7	64.0	78.4	64.9	80.0	50.9	57.9	50.2	61.4	70.9	41.3	75.6	53.7	38.1	55.7
Dec.....	63.9	64.3	78.5	66.1	80.0	51.2	57.9	50.5	61.6	71.1	41.0	75.8	53.9	39.7	55.8
1980:															
Jan.....	63.9	64.3	78.5	65.1	80.0	51.3	57.5	50.7	61.6	71.2	43.2	75.6	53.8	38.0	55.9
Feb.....	63.9	64.3	78.6	65.0	80.1	51.2	56.6	50.7	61.2	70.8	42.0	75.3	53.3	39.1	55.2
Mar.....	63.7	64.1	78.5	65.6	79.9	51.1	56.1	50.6	60.7	70.3	41.7	74.8	52.8	36.9	55.0
Apr.....	63.8	64.3	78.5	64.1	80.1	51.3	55.9	50.8	61.0	70.6	41.7	75.0	53.1	34.8	55.5
May.....	64.1	64.5	78.9	64.8	80.5	51.4	57.1	50.8	61.5	70.8	44.0	75.0	53.9	37.1	56.2
June.....	63.8	64.2	78.3	63.5	80.0	51.3	56.1	50.8	61.1	70.8	43.5	75.0	53.2	35.4	55.5
July.....	63.9	64.2	78.3	63.6	80.0	51.4	56.9	50.8	61.7	71.4	44.6	75.6	53.8	36.3	56.1
Aug.....	63.8	64.1	78.2	62.7	79.9	51.3	55.6	50.9	61.4	70.8	39.7	75.7	53.8	34.9	56.2
Sept.....	63.8	64.1	78.2	62.5	79.9	51.3	56.8	50.7	61.5	71.6	45.7	75.6	53.2	36.2	55.5
Oct.....	63.8	64.2	78.2	63.6	79.8	51.3	56.5	50.8	61.4	70.9	44.8	75.0	53.6	34.2	56.1
Nov.....	63.8	64.1	78.1	63.1	79.8	51.4	56.3	50.9	61.3	70.9	45.3	74.9	53.5	34.1	56.0
Dec.....	63.6	63.9	77.9	62.4	79.6	51.2	56.0	50.7	61.0	70.3	44.0	74.4	54.8	34.3	55.9

¹ Civilian labor force as percent of civilian noninstitutional population in group specified.

Note.—See footnote 3 and Note, Table B-27.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B-31.—Unemployment rate by demographic characteristic, 1948-80

[Percent; ¹ monthly data seasonally adjusted]

Year or month	All work- ers	White						Black and other								
		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	
1948.....	3.8	3.5	3.4			3.8			5.9	5.8				6.1		
1949.....	5.9	5.6	5.6			5.7			8.9	9.6				7.9		
1950.....	5.3	4.9	4.7			5.3			9.0	9.4				8.4		
1951.....	3.3	3.1	2.6			4.2			5.3	4.9				6.1		
1952.....	3.0	2.8	2.5			3.3			5.4	5.2				5.7		
1953.....	2.9	2.7	2.5			3.1			4.5	4.8				4.1		
1954.....	5.5	5.0	4.8	13.4	4.4	5.5	10.4	5.1	9.9	10.3	14.4	9.9	9.2	20.6	8.4	
1955.....	4.4	3.9	3.7	11.3	3.3	4.3	9.1	3.9	8.7	8.8	13.4	8.4	8.5	19.2	7.7	
1956.....	4.1	3.6	3.4	10.5	3.0	4.2	9.7	3.7	8.3	7.9	15.0	7.4	8.9	22.8	7.8	
1957.....	4.3	3.8	3.6	11.5	3.2	4.3	9.5	3.8	7.9	8.3	18.4	7.6	7.3	20.2	6.4	
1958.....	6.8	6.1	6.1	15.7	5.5	6.2	12.7	5.6	12.6	13.7	26.8	12.7	10.8	28.4	9.5	
1959.....	5.5	4.8	4.6	14.0	4.1	5.3	12.0	4.7	10.7	11.5	25.2	10.5	9.4	27.7	8.3	
1960.....	5.5	4.9	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	6.3	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	3.3	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	6.1	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	34.4	6.9	
1971.....	5.9	5.4	4.9	15.1	4.0	6.3	15.1	5.3	9.9	9.1	28.9	7.2	10.8	35.4	8.7	
1972.....	5.6	5.0	4.5	14.2	3.6	5.9	14.2	4.9	10.0	8.9	29.7	6.8	11.3	38.5	8.8	
1973.....	4.9	4.3	3.7	12.3	2.9	5.3	13.0	4.3	8.9	7.6	26.9	5.7	10.5	34.5	8.2	
1974.....	5.6	5.0	4.3	13.5	3.5	6.1	14.5	5.0	9.9	9.1	31.6	6.8	10.7	34.6	8.4	
1975.....	8.5	7.8	7.2	18.3	6.2	8.6	17.4	7.5	13.9	13.7	35.4	11.7	14.0	38.5	11.5	
1976.....	7.7	7.0	6.4	17.3	5.4	7.9	16.4	6.8	13.1	12.7	35.4	10.6	13.6	39.0	11.3	
1977.....	7.0	6.2	5.5	15.0	4.6	7.3	15.9	6.2	13.1	12.4	37.0	10.0	14.0	39.9	11.7	
1978.....	6.0	5.2	4.5	13.5	3.7	6.2	14.4	5.2	11.9	10.9	34.4	8.6	13.1	38.4	10.6	
1979.....	5.8	5.1	4.4	13.9	3.6	5.9	13.9	5.0	11.3	10.3	31.5	8.4	12.3	35.7	10.1	
1980.....	7.1	6.3	6.1	16.2	5.2	6.5	14.8	5.6	13.2	13.3	34.9	11.4	13.1	36.9	11.1	
1979:																
Jan.....	5.8	5.1	4.5	14.2	3.6	6.0	13.8	5.0	11.3	10.2	33.6	8.0	12.5	32.0	10.6	
Feb.....	5.9	5.0	4.4	14.3	3.5	6.0	13.4	5.1	11.9	11.0	33.3	8.9	12.9	34.9	10.7	
Mar.....	5.8	5.1	4.4	14.2	3.5	6.0	13.4	5.1	11.3	10.9	31.9	8.9	11.8	31.8	10.0	
Apr.....	5.8	5.0	4.3	14.1	3.4	5.9	14.0	4.9	11.7	10.6	32.7	8.5	13.0	38.7	10.3	
May.....	5.6	4.9	4.2	14.2	3.3	5.9	13.7	4.9	11.3	10.1	31.0	8.2	12.5	42.4	9.8	
June.....	5.6	4.8	4.1	12.0	3.4	5.8	13.9	4.9	11.1	9.9	32.0	7.9	12.5	35.7	10.4	
July.....	5.6	4.9	4.3	13.3	3.5	5.7	13.7	4.7	10.7	9.9	30.5	8.1	11.5	30.2	9.8	
Aug.....	5.9	5.2	4.5	14.4	3.6	6.1	14.4	5.2	11.1	9.7	28.7	8.0	12.6	38.3	10.4	
Sept.....	5.8	5.1	4.6	14.6	3.6	5.8	14.2	4.9	10.7	9.5	28.9	7.8	12.0	35.1	10.0	
Oct.....	5.9	5.1	4.5	13.6	3.7	6.0	14.6	5.0	11.4	10.5	31.4	8.7	12.4	38.5	10.0	
Nov.....	5.9	5.2	4.7	13.9	3.8	5.9	13.7	5.0	11.0	10.4	31.5	8.6	11.7	34.8	9.6	
Dec.....	6.0	5.3	4.8	14.1	3.9	6.0	14.3	5.1	11.5	10.8	31.9	9.0	12.2	35.6	10.0	
1980:																
Jan.....	6.2	5.5	5.1	14.4	4.2	6.1	14.0	5.1	11.9	11.5	32.4	9.7	12.3	36.5	10.1	
Feb.....	6.2	5.4	4.9	13.8	4.1	6.2	14.6	5.2	11.7	11.5	34.2	9.5	11.9	39.6	9.3	
Mar.....	6.3	5.5	5.2	13.5	4.5	6.0	14.7	5.0	11.9	11.2	31.1	9.5	12.6	36.4	10.5	
Apr.....	6.9	6.1	6.0	15.0	5.2	6.4	14.5	5.5	12.6	12.3	29.1	10.8	12.9	34.8	11.1	
May.....	7.6	6.8	6.8	17.8	5.8	6.7	16.3	5.7	13.6	13.5	32.9	11.7	13.7	37.9	11.6	
June.....	7.5	6.7	6.7	17.4	5.7	6.6	14.7	5.7	13.5	14.0	33.5	12.2	12.9	36.3	10.9	
July.....	7.6	6.8	6.8	17.5	5.8	6.8	15.4	5.8	13.9	14.4	35.0	12.5	13.3	37.0	11.3	
Aug.....	7.6	6.7	6.7	17.5	5.8	6.8	15.5	5.8	13.7	14.6	39.4	12.5	12.7	35.7	10.9	
Sept.....	7.4	6.5	6.6	16.2	5.8	6.4	13.8	5.5	14.1	15.3	37.7	13.2	12.8	37.9	10.6	
Oct.....	7.6	6.6	6.6	17.3	5.7	6.7	14.5	5.8	14.2	14.3	38.2	12.1	14.1	36.4	12.3	
Nov.....	7.5	6.6	6.6	17.7	5.7	6.7	14.9	5.8	14.0	14.1	35.9	12.0	14.0	37.4	12.2	
Dec.....	7.4	6.5	6.4	16.4	5.5	6.7	14.2	5.9	14.0	13.9	38.8	11.6	14.1	36.1	12.3	

¹ Unemployment as percent of civilian labor force in group specified.

Note.—See footnote 3 and Note, Table B-27.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B-32.—Unemployment by duration, 1947-80

[Monthly data seasonally adjusted¹]

Year or month	Total unemployment	Duration of unemployment				Average (mean) duration in weeks
		Less than 5 weeks	5-14 weeks	15-26 weeks	27 weeks and over	
Thousands of persons 16 years of age and over						
1947.....	2,311	1,210	704	234	164	.....
1948.....	2,276	1,300	669	193	116	8.6
1949.....	3,637	1,756	1,194	428	256	10.0
1950.....	3,288	1,450	1,055	425	357	12.1
1951.....	2,055	1,177	574	166	137	9.7
1952.....	1,883	1,135	516	148	84	8.4
1953.....	1,834	1,142	482	132	78	8.0
1954.....	3,532	1,605	1,116	495	317	11.8
1955.....	2,852	1,335	815	366	336	13.0
1956.....	2,750	1,412	805	301	232	11.3
1957.....	2,859	1,408	891	321	239	10.5
1958.....	4,602	1,753	1,396	785	667	13.9
1959.....	3,740	1,585	1,114	469	571	14.4
1960.....	3,852	1,719	1,176	503	454	12.8
1961.....	4,714	1,806	1,376	728	804	15.6
1962.....	3,911	1,663	1,134	534	585	14.7
1963.....	4,070	1,751	1,231	535	553	14.0
1964.....	3,786	1,697	1,117	491	482	13.3
1965.....	3,366	1,628	983	404	351	11.8
1966.....	2,875	1,573	779	287	239	10.4
1967.....	2,975	1,634	893	271	177	8.8
1968.....	2,817	1,594	810	256	156	8.5
1969.....	2,832	1,629	827	242	133	7.9
1970.....	4,088	2,137	1,289	427	235	8.8
1971.....	4,993	2,234	1,578	665	517	11.4
1972.....	4,840	2,223	1,459	597	562	12.1
1973.....	4,304	2,196	1,296	475	337	10.0
1974.....	5,076	2,567	1,572	563	373	9.7
1975.....	7,830	2,894	2,452	1,290	1,193	14.1
1976.....	7,288	2,790	2,159	1,003	1,336	15.8
1977.....	6,855	2,856	2,089	896	1,015	14.3
1978.....	6,047	2,793	1,875	746	633	11.9
1979.....	5,963	2,869	1,892	684	518	10.8
1980.....	7,448	3,208	2,411	1,028	802	11.9
1979:						
Jan.....	5,958	2,737	1,947	693	524	11.2
Feb.....	5,993	2,822	1,915	704	547	11.3
Mar.....	5,956	2,774	1,885	745	569	11.7
Apr.....	5,918	2,842	1,875	675	530	11.0
May.....	5,776	2,725	1,861	686	505	10.9
June.....	5,718	2,848	1,753	653	504	10.5
July.....	5,738	2,775	1,868	629	445	10.3
Aug.....	6,057	3,156	1,735	657	517	10.6
Sept.....	5,971	2,851	2,009	635	507	10.6
Oct.....	6,132	2,972	1,962	681	510	10.5
Nov.....	6,104	2,976	1,880	680	531	10.6
Dec.....	6,272	2,984	2,000	717	530	10.6
1980:						
Jan.....	6,500	3,163	1,994	776	543	10.6
Feb.....	6,454	3,049	2,134	794	505	10.7
Mar.....	6,543	3,005	2,207	796	595	11.0
Apr.....	7,202	3,258	2,373	931	668	11.2
May.....	7,944	3,714	2,589	980	706	10.6
June.....	7,811	3,281	2,812	1,024	753	11.7
July.....	8,021	3,317	2,649	1,093	842	11.8
Aug.....	7,942	3,255	2,533	1,239	911	12.5
Sept.....	7,800	3,042	2,586	1,366	929	13.0
Oct.....	7,961	3,186	2,500	1,256	1,036	13.3
Nov.....	7,946	3,108	2,524	1,213	1,116	13.6
Dec.....	7,785	3,115	2,217	1,231	1,147	13.5

¹ Because of independent seasonal adjustment of the various series, detail will not add to totals.

Note.—See footnote 3 and Note, Table B-27.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B-33.—Unemployment by reason, 1967-80

[Monthly data seasonally adjusted¹]

Year or month	Total unemployment	Job losers	Job leavers	Reentrants	New entrants
Thousands of persons 16 years of age and over					
1967.....	2,975	1,229	438	945	396
1968.....	2,817	1,070	431	909	407
1969.....	2,832	1,017	436	965	413
1970.....	4,088	1,809	549	1,227	503
1971.....	4,993	2,313	587	1,466	627
1972.....	4,840	2,089	635	1,444	672
1973.....	4,304	1,666	674	1,323	642
1974.....	5,076	2,205	756	1,441	672
1975.....	7,830	4,341	812	1,865	812
1976.....	7,288	3,625	886	1,895	882
1977.....	6,855	3,103	889	1,926	938
1978.....	6,047	2,514	851	1,814	867
1979.....	5,963	2,555	854	1,758	797
1980.....	7,448	3,860	863	1,875	851
1980:					
Jan.....	6,500	3,038	807	1,808	814
Feb.....	6,454	2,979	831	1,797	825
Mar.....	6,543	3,102	804	1,812	815
Apr.....	7,202	3,581	905	1,909	752
May.....	7,944	4,164	930	1,975	871
June.....	7,811	4,468	887	1,834	872
July.....	8,021	4,364	866	1,868	893
Aug.....	7,942	4,319	890	1,883	870
Sept.....	7,800	4,387	855	1,844	862
Oct.....	7,961	4,240	870	2,013	880
Nov.....	7,946	4,229	897	1,896	890
Dec.....	7,785	4,226	813	1,869	868
Percent of civilian labor force					
1967.....	3.8	1.6	0.6	1.2	0.5
1968.....	3.6	1.3	.5	1.2	.5
1969.....	3.5	1.2	.5	1.2	.5
1970.....	4.9	2.2	.7	1.5	.6
1971.....	5.9	2.8	.7	1.7	.7
1972.....	5.6	2.4	.7	1.7	.8
1973.....	4.9	1.9	.8	1.5	.7
1974.....	5.6	2.4	.8	1.6	.7
1975.....	8.5	4.7	.9	2.0	.9
1976.....	7.7	3.8	.9	2.0	.9
1977.....	7.0	3.2	.9	2.0	1.0
1978.....	6.0	2.5	.8	1.8	.9
1979.....	5.8	2.5	.8	1.7	.8
1980.....	7.1	3.7	.8	1.8	.8
1980:					
Jan.....	6.2	2.9	.8	1.7	.8
Feb.....	6.2	2.9	.8	1.7	.8
Mar.....	6.3	3.0	.8	1.7	.8
Apr.....	6.9	3.4	.9	1.8	.7
May.....	7.6	4.0	.9	1.9	.8
June.....	7.5	4.3	.8	1.8	.8
July.....	7.6	4.2	.8	1.8	.9
Aug.....	7.6	4.1	.8	1.8	.8
Sept.....	7.4	4.2	.8	1.8	.8
Oct.....	7.6	4.0	.8	1.9	.8
Nov.....	7.5	4.0	.9	1.8	.8
Dec.....	7.4	4.0	.8	1.8	.8

¹ Because of independent seasonal adjustment of the various series, detail will not add to totals.

Note.—See footnote 3 and Note, Table B-27.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B-34.—Unemployment insurance programs, selected data, 1946-80

Year or month	All programs			State programs					
	Covered employment ¹	Insured unemployment (weekly average) ^{2,3}	Total benefits paid (millions of dollars) ^{2,4}	Insured unemployment	Initial claims	Exhaustions ⁵	Insured unemployment as percent of covered employment	Benefits paid	
								Total (millions of dollars) ⁴	Average weekly check (dollars) ⁶
	Thousands			Weekly average; thousands					
1946.....	31,856	2,804	2,878.5	1,295	189	38	4.3	1,094.9	18.50
1947.....	33,876	1,793	1,785.5	997	187	24	3.1	775.1	17.83
1948.....	34,646	1,446	1,328.7	980	200	20	3.0	789.9	19.03
1949.....	33,098	2,474	2,269.8	1,973	340	37	6.2	1,736.0	20.48
1950.....	34,308	1,605	1,467.6	1,513	236	36	4.6	1,373.1	20.76
1951.....	36,334	1,000	862.9	969	208	16	2.8	840.4	21.09
1952.....	37,006	1,069	1,043.5	1,044	215	18	2.9	998.2	22.79
1953.....	38,072	1,067	1,050.6	990	218	15	2.8	962.2	23.58
1954.....	36,622	2,051	2,291.6	1,870	304	34	5.2	2,026.9	24.93
1955.....	40,018	1,399	1,560.2	1,265	226	25	3.5	1,350.3	25.04
1956.....	42,751	1,323	1,540.6	1,215	227	20	3.2	1,380.7	27.02
1957.....	43,436	1,571	1,913.0	1,446	270	23	3.6	1,733.9	28.17
1958.....	44,411	2,773	4,290.6	2,510	369	50	6.4	3,512.7	30.58
1959.....	45,728	1,860	2,854.3	1,684	277	33	4.4	2,279.0	30.41
1960.....	46,334	2,071	3,022.8	1,908	331	31	4.8	2,726.7	32.87
1961.....	46,266	2,994	4,358.1	2,290	350	46	5.6	3,422.7	33.80
1962.....	47,776	1,946	3,145.1	1,783	302	32	4.4	2,675.4	34.56
1963.....	48,434	1,973	3,025.9	1,806	298	30	4.3	2,774.7	35.27
1964.....	49,637	1,753	2,749.2	1,605	268	26	3.8	2,522.1	35.92
1965.....	51,580	1,450	2,360.4	1,328	232	21	3.0	2,166.0	37.19
1966.....	54,739	1,129	1,890.9	1,061	203	15	2.3	1,771.3	39.75
1967.....	56,342	1,270	2,221.5	1,205	226	17	2.5	2,092.3	41.25
1968.....	57,977	1,187	2,191.0	1,111	201	16	2.2	2,031.6	43.43
1969.....	59,999	1,177	2,298.6	1,101	200	16	2.1	2,127.9	46.17
1970.....	59,526	2,070	4,209.3	1,805	296	25	3.4	3,848.5	50.34
1971.....	59,375	2,608	6,154.0	2,150	295	39	4.1	4,957.0	54.02
1972.....	66,458	2,192	5,491.1	1,848	261	35	3.5	4,471.0	56.76
1973.....	69,897	1,793	4,517.3	1,632	247	29	2.7	4,007.6	59.00
1974.....	72,451	2,558	6,933.9	2,262	363	37	3.5	5,974.9	64.25
1975.....	71,037	4,937	16,802.4	3,986	478	81	6.0	11,754.7	70.23
1976.....	73,459	3,846	12,344.8	2,991	386	63	4.6	8,974.5	75.16
1977.....	76,419	3,308	10,998.9	2,655	375	55	3.9	8,352.7	78.79
1978.....	88,804	2,645	9,006.9	2,359	346	39	3.3	7,717.2	83.67
1979.....	^a 92,062	2,592	9,401.3	2,434	388	39	2.9	8,612.9	89.67
1979:				**	**		**		
Jan.....	3,198		1,036.6	2,345	352	40	3.0	972.8	88.28
Feb.....	3,209		972.1	2,329	346	40	3.0	915.1	90.31
Mar.....	2,921		1,043.0	2,336	359	44	3.0	975.6	90.28
Apr.....	2,610		844.2	2,381	433	44	3.0	777.7	89.28
May.....	2,230		793.2	2,307	355	42	2.9	725.2	88.37
June.....	2,119		662.9	2,320	380	39	2.9	610.3	87.25
July.....	2,429		715.1	2,409	390	38	2.9	665.7	86.40
Aug.....	2,377		820.2	2,492	394	36	3.0	765.0	88.56
Sept.....	2,164		656.1	2,488	394	35	3.0	606.3	89.10
Oct.....	2,236		741.2	2,540	402	35	3.0	674.0	90.59
Nov.....	2,559		795.9	2,643	405	36	3.1	728.4	92.23
Dec.....	3,047		909.0	2,631	416	39	3.1	843.9	94.54
1980:									
Jan.....	3,740		1,368.2	2,729	414	47	3.2	1,283.9	96.41
Feb.....	3,730		1,307.0	2,685	389	48	3.1	1,229.9	98.39
Mar.....	3,652		1,323.8	2,857	455	52	3.3	1,218.2	99.19
Apr.....	3,629		1,378.3	3,204	574	59	3.7	1,232.2	99.52
May.....	3,680		1,338.3	3,717	642	57	4.3	1,196.8	99.55
June.....	3,790		1,333.8	4,009	617	59	4.7	1,213.6	99.88
July.....	4,140		1,579.5	3,880	530	65	4.5	1,397.5	98.75
Aug.....	3,911		1,441.8	3,778	506	62	4.4	1,249.8	99.68
Sept.....	3,961		1,503.0	3,802	494	58	4.4	1,144.9	99.86
Oct.....	3,661			3,589	446		4.1		
Nov.....	3,726			3,332	403		3.8		

**Monthly data are seasonally adjusted.

¹ Includes persons under the State, UCFE (Federal employee, effective January 1955), and RRB (Railroad Retirement Board) programs. Beginning October 1958, also includes the UCX program (unemployment compensation for ex-servicemen).² Includes State, UCFE, RR, UCX, UCV (unemployment compensation for veterans, October 1952-January 1960), and SRA (Servicemen's Readjustment Act, September 1944-September 1951) programs. Also includes Federal and State extended benefit programs. Does not include FSB (Federal supplemental benefits) and SUA (special unemployment assistance) programs.³ Covered workers who have completed at least 1 week of unemployment.⁴ Annual data are net amounts and monthly data are gross amounts.⁵ Individuals receiving final payments in benefit year.⁶ For total unemployment only.⁷ Programs include Puerto Rican sugarcane workers for initial claims and insured unemployment beginning July 1963.⁸ Latest data available for all programs combined. Workers covered by State programs account for about 97 percent of wage and salary earners.

Source: Department of Labor, Employment and Training Administration.

TABLE B-35.—*Wage and salary workers in nonagricultural establishments, 1929-80*

(Thousands of persons; monthly data seasonally adjusted)

Year or month	Total wage and salary workers	Manufacturing			Mining	Construction	Transportation and public utilities	Wholesale and retail trade	Finance, insurance, and real estate	Services	Government	
		Total	Durable goods	Non-durable goods							Federal	State and local
1929.....	31,324	10,702			1,087	1,512	3,916	6,123	1,494	3,425	533	2,532
1933.....	23,699	7,397			744	824	2,672	4,755	1,280	2,861	585	2,601
1939.....	30,603	10,278	4,715	5,564	854	1,165	2,936	6,426	1,447	3,502	905	3,090
1940.....	32,361	10,985	5,363	5,622	925	1,311	3,038	6,750	1,485	3,665	996	3,206
1941.....	36,539	13,192	6,968	6,225	957	1,814	3,274	7,210	1,525	3,905	1,340	3,320
1942.....	40,106	15,280	8,823	6,458	992	2,198	3,460	7,118	1,509	4,066	2,213	3,270
1943.....	42,434	17,602	11,084	6,518	925	1,587	3,647	6,982	1,481	4,130	2,905	3,175
1944.....	41,864	17,328	10,856	6,472	892	1,108	3,829	7,058	1,461	4,145	2,928	3,116
1945.....	40,374	15,524	9,074	6,450	836	1,147	3,906	7,314	1,481	4,222	2,808	3,137
1946.....	41,652	14,703	7,742	6,962	862	1,683	4,061	8,376	1,675	4,697	2,254	3,341
1947.....	43,857	15,545	8,385	7,159	955	2,009	4,166	8,955	1,728	5,025	1,892	3,582
1948.....	44,866	15,582	8,326	7,256	994	2,198	4,189	9,272	1,800	5,181	1,863	3,787
1949.....	43,754	14,441	7,489	6,953	930	2,194	4,001	9,264	1,828	5,240	1,908	3,948
1950.....	45,197	15,241	8,094	7,147	901	2,364	4,034	9,386	1,888	5,357	1,928	4,098
1951.....	47,819	16,393	9,089	7,304	929	2,637	4,226	9,742	1,956	5,547	2,302	4,087
1952.....	48,793	16,632	9,349	7,284	898	2,668	4,248	10,004	2,035	5,699	2,420	4,188
1953.....	50,202	17,549	10,110	7,438	866	2,659	4,290	10,247	2,111	5,835	2,305	4,540
1954.....	48,990	16,314	9,129	7,185	791	2,646	4,084	10,235	2,200	5,969	2,188	4,363
1955.....	50,641	16,882	9,541	7,341	792	2,839	4,141	10,535	2,238	6,240	2,187	4,727
1956.....	52,369	17,243	9,833	7,411	822	3,039	4,244	10,858	2,389	6,497	2,209	5,069
1957.....	52,853	17,174	9,855	7,321	828	2,962	4,241	10,886	2,438	6,708	2,217	5,399
1958.....	51,324	15,945	8,829	7,116	751	2,817	3,976	10,750	2,481	6,765	2,191	5,648
1959.....	53,268	16,675	9,373	7,303	732	3,004	4,011	11,127	2,549	7,087	2,233	5,850
1960.....	54,189	16,796	9,459	7,337	712	2,926	4,004	11,391	2,629	7,378	2,270	6,083
1961.....	53,999	16,326	9,070	7,256	672	2,859	3,903	11,337	2,688	7,620	2,279	6,315
1962.....	55,549	16,853	9,480	7,373	650	2,948	3,906	11,566	2,754	7,982	2,340	6,550
1963.....	56,563	16,995	9,616	7,380	635	3,010	3,903	11,778	2,830	8,277	2,358	6,868
1964.....	58,283	17,274	9,816	7,458	634	3,097	3,951	12,160	2,911	8,660	2,348	7,248
1965.....	60,765	18,062	10,405	7,656	632	3,232	4,036	12,716	2,977	9,036	2,378	7,696
1966.....	63,901	19,214	11,282	7,930	627	3,317	4,158	13,245	3,058	9,498	2,564	8,220
1967.....	65,803	19,447	11,439	8,007	613	3,248	4,268	13,606	3,185	10,045	2,719	8,672
1968.....	67,897	19,781	11,626	8,155	606	3,350	4,318	14,099	3,337	10,567	2,737	9,102
1969.....	70,384	20,167	11,895	8,272	619	3,575	4,442	14,705	3,512	11,169	2,758	9,437
1970.....	70,880	19,367	11,208	8,158	623	3,588	4,515	15,040	3,645	11,548	2,731	9,823
1971.....	71,214	18,623	10,636	7,987	609	3,704	4,476	15,352	3,772	11,797	2,696	10,185
1972.....	73,675	19,151	11,049	8,102	628	3,889	4,541	15,949	3,908	12,276	2,684	10,649
1973.....	76,790	20,154	11,891	8,262	642	4,097	4,656	16,607	4,046	12,857	2,663	11,068
1974.....	78,265	20,077	11,925	8,152	697	4,020	4,725	16,987	4,148	13,441	2,724	11,446
1975.....	79,945	18,323	10,688	7,635	752	3,525	4,542	17,080	4,165	13,892	2,748	11,937
1976.....	79,382	18,997	11,077	7,920	779	3,571	4,582	17,555	4,271	14,551	2,733	12,138
1977.....	82,471	19,682	11,587	8,086	813	3,851	4,713	18,516	4,467	15,303	2,727	12,399
1978.....	86,697	20,505	12,274	8,231	851	4,229	4,923	19,542	4,724	16,252	2,753	12,919
1979.....	89,886	21,082	12,772	8,290	960	4,483	5,141	20,269	4,974	17,078	2,773	13,147
1980 ^a	90,652	20,365	12,218	8,147	1,025	4,468	5,155	20,571	5,162	17,736	2,867	13,304
1979: Jan.....	88,858	21,040	12,717	8,323	927	4,396	5,061	20,058	4,872	16,728	2,757	13,019
Feb.....	89,109	21,094	12,781	8,313	936	4,347	5,082	20,126	4,889	16,831	2,759	13,045
Mar.....	89,455	21,130	12,814	8,316	940	4,467	5,103	20,159	4,905	16,928	2,758	13,065
Apr.....	89,386	21,113	12,811	8,302	941	4,419	5,008	20,176	4,924	16,944	2,760	13,101
May.....	89,708	21,113	12,810	8,303	946	4,463	5,110	20,209	4,951	17,029	2,770	13,117
June.....	89,909	21,132	12,837	8,295	953	4,472	5,168	20,217	4,970	17,074	2,783	13,140
July.....	90,054	21,128	12,841	8,287	963	4,491	5,156	20,254	4,989	17,114	2,784	13,175
Aug.....	90,222	21,055	12,782	8,273	974	4,499	5,182	20,301	5,019	17,152	2,811	13,229
Sept.....	90,283	21,071	12,822	8,249	976	4,507	5,185	20,352	5,017	17,192	2,762	13,221
Oct.....	90,441	21,043	12,764	8,279	982	4,529	5,203	20,414	5,033	17,264	2,769	13,204
Nov.....	90,552	20,966	12,693	8,273	985	4,553	5,216	20,479	5,049	17,308	2,773	13,223
Dec.....	90,678	20,983	12,706	8,277	992	4,615	5,212	20,448	5,064	17,362	2,773	13,229
1980: Jan.....	91,031	20,971	12,681	8,290	999	4,745	5,202	20,529	5,091	17,462	2,791	13,241
Feb.....	91,186	20,957	12,715	8,242	1,007	4,659	5,198	20,637	5,101	17,540	2,826	13,261
Mar.....	91,144	20,938	12,707	8,231	1,009	4,529	5,202	20,610	5,115	17,580	2,886	13,275
Apr.....	90,951	20,642	12,442	8,200	1,012	4,467	5,178	20,531	5,119	17,618	3,115	13,269
May.....	90,468	20,286	12,140	8,146	1,023	4,436	5,167	20,487	5,137	17,659	2,960	13,313
June.....	90,047	20,014	11,947	8,067	1,029	4,379	5,134	20,459	5,150	17,652	2,951	13,279
July.....	89,867	19,828	11,819	8,009	1,013	4,322	5,114	20,506	5,167	17,760	2,893	13,264
Aug.....	90,142	19,940	11,860	8,080	1,013	4,359	5,129	20,589	5,180	17,788	2,828	13,316
Sept.....	90,384	20,044	11,955	8,089	1,028	4,404	5,124	20,620	5,194	17,861	2,765	13,344
Oct.....	90,710	20,157	12,043	8,114	1,037	4,442	5,147	20,641	5,214	17,913	2,788	13,371
Nov.....	90,917	20,282	12,147	8,135	1,054	4,468	5,133	20,647	5,227	17,951	2,793	13,362
Dec.....	91,122	20,349	12,185	8,164	1,070	4,497	5,135	20,626	5,240	18,025	2,808	13,372

Note.—Data in Tables B-35 through B-37 are based on reports from employing establishments and relate to full- and part-time wage and salary workers in nonagricultural establishments who worked during or received pay for any part of the pay period which includes the 12th of the month. Not comparable with labor force data (Tables B-27 through B-33), which include proprietors, self-employed persons, domestic servants, and unpaid family workers; which count persons as employed when they are not at work because of industrial disputes, bad weather, etc., even if they are not paid for the time off; and which are based on a sample of the working-age population. For description and details of the various establishment data, see "Employment and Earnings."

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B-36.—Average weekly hours and hourly earnings in selected private nonagricultural industries, 1947-80

(For production or nonsupervisory workers; monthly data seasonally adjusted)

Year or month	Average weekly hours				Average gross hourly earnings, current dollars				Adjusted hourly earnings, total private nonagricultural ²			
	Total private non-agricultural ¹	Manufacturing	Construction	Wholesale and retail trade	Total private non-agricultural ¹	Manufacturing	Construction	Wholesale and retail trade	Index, 1967=100		Percent change from a year earlier ⁴	
									Current dollars	1967 dollars ³	Current dollars	1967 dollars
1947.....	40.3	40.4	38.2	40.5	\$1.131	\$1.216	\$1.540	\$0.940	42.6	63.7	.....	.....
1948.....	40.0	40.0	38.1	40.4	1.225	1.327	1.712	1.010	46.0	63.8	8.0	0.2
1949.....	39.4	39.1	37.7	40.5	1.275	1.376	1.792	1.060	48.2	67.5	4.8	5.8
1950.....	39.8	40.5	37.4	40.5	1.335	1.439	1.863	1.100	50.0	69.3	3.7	2.7
1951.....	39.9	40.6	38.1	40.5	1.45	1.56	2.02	1.18	53.7	69.0	7.4	-.4
1952.....	39.9	40.7	38.9	40.0	1.52	1.64	2.13	1.23	56.4	70.9	5.0	2.8
1953.....	39.6	40.5	37.9	39.5	1.61	1.74	2.28	1.30	59.6	74.4	5.7	4.9
1954.....	39.1	39.6	37.2	39.5	1.65	1.78	2.38	1.35	61.7	76.6	3.5	3.0
1955.....	39.6	40.7	37.1	39.4	1.71	1.85	2.45	1.40	63.7	79.4	3.2	3.7
1956.....	39.3	40.4	37.5	39.1	1.80	1.95	2.57	1.47	67.0	82.3	5.2	3.7
1957.....	38.8	39.8	37.0	38.7	1.89	2.04	2.71	1.54	70.3	83.4	4.9	1.3
1958.....	38.5	39.2	36.8	38.6	1.95	2.10	2.82	1.60	73.2	84.5	4.1	1.3
1959.....	39.0	40.3	37.0	38.8	2.02	2.19	2.93	1.66	75.8	86.8	3.6	2.7
1960.....	38.6	39.7	36.7	38.6	2.09	2.26	3.07	1.71	78.4	88.4	3.4	1.8
1961.....	38.6	39.8	36.9	38.3	2.14	2.32	3.20	1.76	80.8	90.2	3.1	2.0
1962.....	38.7	40.4	37.0	38.2	2.22	2.39	3.31	1.83	83.5	92.2	3.3	2.2
1963.....	38.8	40.5	37.3	38.1	2.28	2.45	3.41	1.89	85.9	93.7	2.9	1.6
1964.....	38.7	40.7	37.2	37.9	2.36	2.53	3.55	1.97	88.2	95.0	2.7	1.4
1965.....	38.8	41.2	37.4	37.7	2.46	2.61	3.70	2.04	91.2	96.6	3.4	1.7
1966.....	38.6	41.4	37.6	37.1	2.56	2.71	3.89	2.14	95.3	98.0	4.5	1.4
1967.....	38.0	40.6	37.7	36.6	2.68	2.82	4.11	2.25	100.0	100.0	4.9	2.0
1968.....	37.8	40.7	37.3	36.1	2.85	3.01	4.41	2.41	106.2	101.9	6.2	1.9
1969.....	37.7	40.6	37.9	35.7	3.04	3.19	4.79	2.56	113.2	103.1	6.6	1.2
1970.....	37.1	39.8	37.3	35.3	3.23	3.35	5.24	2.72	120.7	103.8	6.6	.7
1971.....	36.9	39.9	37.2	35.1	3.45	3.57	5.69	2.88	129.2	106.5	7.0	2.6
1972.....	37.0	40.5	36.5	34.9	3.70	3.82	6.06	3.05	137.5	109.7	6.4	3.0
1973.....	36.9	40.7	36.8	34.6	3.94	4.09	6.41	3.23	146.0	109.7	6.2	.0
1974.....	36.5	40.0	36.6	34.2	4.24	4.42	6.81	3.48	157.5	106.7	7.9	-2.7
1975.....	36.1	39.5	36.4	33.9	4.53	4.83	7.31	3.73	170.6	105.9	8.3	-.7
1976.....	36.1	40.1	36.8	33.7	4.86	5.22	7.71	3.97	183.0	107.3	7.3	1.3
1977.....	36.0	40.3	36.5	33.3	5.25	5.68	8.10	4.28	196.8	108.4	7.5	1.0
1978.....	35.8	40.4	36.8	32.9	5.69	6.17	8.66	4.67	212.9	109.0	8.2	.6
1979.....	35.6	40.2	37.0	32.6	6.16	6.69	9.27	5.06	229.8	105.6	7.9	-3.1
1980 ^a	35.3	39.7	37.0	32.1	6.66	7.27	9.93	5.48	250.6	.....	9.1	.....
1979:												
Jan.....	35.7	40.6	36.7	32.5	5.96	6.47	8.96	4.91	222.6	108.4	8.2	-1.1
Feb.....	35.7	40.6	36.9	32.6	5.99	6.52	9.06	4.93	224.0	107.8	8.4	-1.4
Mar.....	35.9	40.6	37.5	32.7	6.03	6.56	9.05	4.97	225.2	107.3	8.2	-1.9
Apr.....	35.3	39.3	35.6	32.8	6.03	6.57	9.13	4.99	226.7	106.9	8.0	-2.4
May.....	35.6	40.2	37.1	32.6	6.08	6.65	9.20	5.01	227.6	106.3	7.8	-2.8
June.....	35.6	40.1	37.2	32.6	6.13	6.69	9.21	5.05	229.2	105.9	7.9	-2.9
July.....	35.6	40.1	36.9	32.6	6.17	6.73	9.29	5.07	230.8	105.5	7.8	-3.3
Aug.....	35.7	40.1	37.3	32.6	6.22	6.75	9.33	5.11	232.3	105.2	8.0	-3.5
Sept.....	35.6	40.1	37.5	32.6	6.26	6.79	9.39	5.13	234.3	104.9	8.2	-3.7
Oct.....	35.6	40.1	36.8	32.6	6.28	6.82	9.40	5.15	235.0	104.2	7.7	-4.2
Nov.....	35.6	40.1	37.0	32.6	6.34	6.87	9.48	5.20	237.3	104.1	8.2	-4.1
Dec.....	35.7	40.2	37.2	32.6	6.39	6.91	9.55	5.23	239.4	103.8	8.3	-4.5
1980:												
Jan.....	35.6	40.3	37.3	32.6	6.41	6.93	9.46	5.28	240.3	102.7	7.9	-5.3
Feb.....	35.5	40.1	37.1	32.4	6.45	6.99	9.64	5.31	242.4	102.2	8.2	-5.2
Mar.....	35.4	39.8	36.6	32.3	6.51	7.06	9.75	5.37	245.2	102.0	8.9	-5.0
Apr.....	35.3	39.8	36.7	32.0	6.54	7.11	9.79	5.38	246.2	101.4	8.6	-5.2
May.....	35.1	39.3	36.8	32.1	6.57	7.15	9.83	5.42	248.3	101.4	9.1	-4.6
June.....	35.0	39.1	37.1	31.9	6.62	7.22	9.89	5.45	250.9	101.5	9.4	-4.2
July.....	34.9	39.0	36.8	31.8	6.67	7.30	9.94	5.50	252.1	102.0	9.2	-3.4
Aug.....	35.1	39.4	36.5	32.0	6.71	7.36	10.04	5.53	254.0	102.0	9.3	-3.0
Sept.....	35.2	39.6	37.4	32.1	6.77	7.42	10.05	5.56	255.4	101.5	9.0	-3.2
Oct.....	35.3	39.7	37.0	32.2	6.83	7.49	10.14	5.59	257.9	101.5	9.7	-2.5
Nov.....	35.4	39.9	37.1	32.2	6.91	7.58	10.20	5.65	260.7	101.6	9.8	-2.5
Dec.....	35.4	40.2	37.0	32.2	6.95	7.64	10.29	5.68	261.6	.....	9.3	.....

¹ Also includes other private industry groups shown in Table B-35.

² Adjusted for overtime (in manufacturing only) and for interindustry employment shifts.

³ Current dollar earnings index divided by the consumer price index (revised index for urban wage earners and clerical workers used beginning 1978).

⁴ Monthly data are computed from indexes to two decimal places.

Note.—See Note, Table B-35.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B-37.—Average weekly earnings in selected private nonagricultural industries, 1947-80

[For production or nonsupervisory workers; monthly data seasonally adjusted]

Year or month	Average gross weekly earnings					Percent change from a year earlier, total private nonagricultural ^a	
	Total private nonagricultural ¹		Manufacturing (current dollars)	Construction (current dollars)	Wholesale and retail trade (current dollars)		
	Current dollars	1967 dollars ^a				Current dollars	1967 dollars
1947.....	\$45.58	\$68.13	\$49.13	\$58.83	\$38.07		
1948.....	49.00	67.96	53.08	65.23	40.80	7.5	-0.2
1949.....	50.24	70.36	53.80	67.56	42.93	2.5	3.5
1950.....	53.13	73.69	58.28	69.68	44.55	5.8	4.7
1951.....	57.86	74.37	63.34	76.96	47.79	8.9	.9
1952.....	60.65	76.29	66.75	82.86	49.20	4.8	2.6
1953.....	63.76	79.60	70.47	86.41	51.35	5.1	4.3
1954.....	64.52	80.15	70.49	88.54	53.33	1.2	.7
1955.....	67.72	84.44	75.30	90.90	55.16	5.0	5.4
1956.....	70.74	86.90	78.78	96.38	57.48	4.5	2.9
1957.....	73.33	86.99	81.19	100.27	59.60	3.7	.1
1958.....	75.08	86.70	82.32	103.78	61.76	2.4	-3.3
1959.....	78.78	90.24	88.26	108.41	64.41	4.9	4.1
1960.....	80.67	90.95	89.72	112.67	66.01	2.4	.8
1961.....	82.60	92.19	92.34	118.08	67.41	2.4	1.4
1962.....	85.91	94.82	96.56	122.47	69.91	4.0	2.9
1963.....	88.46	96.47	99.23	127.19	72.01	3.0	1.7
1964.....	91.33	98.31	102.97	132.06	74.66	3.2	1.9
1965.....	95.45	101.01	107.53	138.38	76.91	4.5	2.7
1966.....	98.82	101.67	112.19	146.26	79.39	3.5	.7
1967.....	101.84	101.84	114.49	154.95	82.35	3.1	.2
1968.....	107.73	103.39	122.51	164.49	87.00	5.8	1.5
1969.....	114.61	104.38	129.51	181.54	91.39	6.4	1.0
1970.....	119.83	103.04	133.33	195.45	96.02	4.6	-1.3
1971.....	127.31	104.95	142.44	211.67	101.09	6.2	1.9
1972.....	136.90	109.26	154.71	221.19	106.45	7.5	4.1
1973.....	145.39	109.23	166.46	235.89	111.76	6.2	-0.0
1974.....	154.76	104.78	176.80	249.25	119.02	6.4	-4.1
1975.....	163.53	101.45	190.79	266.08	126.45	5.7	-3.2
1976.....	175.45	102.90	209.32	283.73	133.79	7.3	1.4
1977.....	189.00	104.13	228.90	295.65	142.52	7.7	1.2
1978.....	203.70	104.30	249.27	318.69	153.64	7.8	.2
1979.....	219.30	100.73	268.94	342.99	164.96	7.7	-3.4
1980 ^p	235.10		288.62	367.41	175.91	7.2	
1979:							
Jan.....	212.77	103.59	262.68	328.83	159.58	9.6	.1
Feb.....	213.84	102.96	264.71	334.31	160.72	9.4	-5.5
Mar.....	216.48	103.13	266.34	339.38	162.52	8.6	-1.6
Apr.....	212.86	100.41	258.20	325.03	163.67	5.4	-4.8
May.....	216.45	101.10	267.33	341.32	163.33	7.6	-3.0
June.....	218.23	100.85	268.27	342.61	164.63	7.1	-3.6
July.....	219.65	100.43	269.87	342.80	165.28	7.2	-3.9
Aug.....	222.05	100.52	270.68	348.01	166.59	7.6	-3.9
Sept.....	222.86	99.76	272.28	352.13	167.24	7.9	-3.9
Oct.....	223.57	99.10	273.48	345.92	167.89	6.9	-4.9
Nov.....	225.70	99.03	275.49	350.76	169.52	7.2	-4.9
Dec.....	228.12	98.88	277.78	355.26	170.50	7.4	-5.3
1980:							
Jan.....	228.20	97.52	279.28	352.86	172.13	6.9	-6.2
Feb.....	228.98	96.53	280.30	357.64	172.04	6.8	-6.5
Mar.....	230.45	95.82	280.99	356.85	173.45	6.6	-7.0
Apr.....	230.86	95.08	282.98	359.29	172.16	8.2	-5.6
May.....	230.61	94.16	281.00	361.74	173.98	6.5	-6.9
June.....	231.70	93.77	282.30	366.92	173.86	6.4	-6.9
July.....	232.78	94.17	284.70	365.79	174.90	5.7	-6.5
Aug.....	235.52	94.62	289.98	366.46	176.96	6.6	-5.4
Sept.....	238.30	94.75	293.83	375.87	178.48	6.4	-5.5
Oct.....	241.10	94.92	297.35	375.18	180.00	7.5	-4.6
Nov ^p	244.61	95.33	302.44	378.42	181.93	8.2	-3.9
Dec ^p	246.03		307.13	380.73	182.90	8.2	

¹ Also includes other private industry groups shown in Table B-35.² Earnings in current dollars divided by the consumer price index (revised index for urban wage earners and clerical workers used beginning 1978).³ Based on unadjusted data.

Note.—See Note, Table B-35.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B-38.—*Productivity and related data, private business sector, 1947-79*

[1967 = 100]

Year	Output		Hours of all persons ²		Output per hour of all persons ²		Compensation per hour ³		Unit labor cost		Implicit price deflator ⁴	
	Private business sector	Nonfarm business sector	Private business sector	Nonfarm business sector	Private business sector	Nonfarm business sector	Private business sector	Nonfarm business sector	Private business sector	Nonfarm business sector	Private business sector	Nonfarm business sector
1947.....	47.9	46.7	90.5	78.7	53.0	59.3	36.1	38.5	68.1	64.9	65.8	63.0
1948.....	50.8	49.5	91.1	80.0	55.8	61.9	39.1	41.8	70.2	67.6	70.4	67.3
1949.....	49.9	48.6	88.1	77.0	56.6	63.2	39.8	43.1	70.3	68.2	69.6	67.9
1950.....	54.4	53.2	89.1	79.4	61.1	67.0	42.6	45.6	69.7	68.0	70.7	69.1
1951.....	57.6	56.6	91.7	83.1	62.8	68.1	46.8	49.6	74.5	72.7	75.9	73.6
1952.....	59.5	58.5	91.8	83.9	64.8	69.7	49.7	52.3	76.8	75.0	76.8	74.9
1953.....	62.1	61.0	92.8	86.0	66.9	70.9	52.9	55.2	79.1	77.9	77.5	76.4
1954.....	60.9	59.7	89.7	83.1	67.9	71.9	54.6	56.9	80.4	79.2	78.2	77.4
1955.....	65.8	64.6	93.1	86.5	70.6	74.7	56.0	59.0	79.3	79.0	79.4	79.1
1956.....	67.5	66.4	94.5	88.7	71.4	74.9	59.7	62.5	83.6	83.5	82.1	81.8
1957.....	68.1	67.2	93.1	88.3	73.2	76.2	63.6	66.1	86.9	86.8	84.9	84.8
1958.....	67.1	66.0	88.9	84.6	75.4	78.0	66.4	68.6	88.0	87.9	86.0	85.6
1959.....	70.8	70.0	92.4	88.4	76.6	79.3	69.2	71.3	90.3	90.0	89.1	89.0
1960.....	73.1	72.3	92.6	88.9	79.0	81.2	72.1	74.4	91.3	91.6	89.0	88.8
1961.....	74.4	73.6	91.2	88.0	81.6	83.6	74.8	76.8	91.7	91.8	89.5	89.3
1962.....	78.5	77.9	92.7	89.9	84.7	86.6	78.2	79.9	92.3	92.2	90.8	90.7
1963.....	81.9	81.3	93.2	90.9	87.9	89.4	81.1	82.6	92.3	92.4	91.8	91.8
1964.....	86.8	86.4	94.8	93.0	91.6	92.9	85.3	86.4	93.1	93.0	92.7	92.8
1965.....	92.7	92.4	97.8	96.5	94.9	95.8	88.6	89.3	93.4	93.2	94.5	94.3
1966.....	97.8	97.9	100.0	99.7	97.8	98.2	94.8	94.7	96.9	96.5	97.3	96.9
1967.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968.....	105.1	105.3	101.7	102.0	103.3	103.3	107.7	107.4	104.2	103.9	104.0	104.0
1969.....	108.1	108.4	104.4	105.2	103.6	103.0	115.2	114.4	111.2	111.1	109.0	108.9
1970.....	107.2	107.3	102.6	103.8	104.5	103.3	123.7	122.4	118.4	118.4	114.0	114.1
1971.....	110.4	110.4	102.0	103.4	108.2	106.8	131.8	130.4	121.8	122.1	119.0	119.3
1972.....	117.7	118.1	105.1	106.6	112.1	110.8	140.4	139.1	125.3	125.6	123.1	122.8
1973.....	125.6	126.2	109.2	111.1	115.0	113.6	151.7	149.6	131.8	131.7	129.8	127.3
1974.....	123.2	123.7	109.6	111.6	112.4	110.9	165.9	163.7	147.5	147.6	142.0	140.2
1975.....	120.9	121.0	105.1	106.9	115.0	113.2	181.8	179.4	158.1	158.5	155.8	154.6
1976.....	128.5	129.1	108.2	110.5	118.8	116.9	197.4	194.0	166.2	166.0	163.2	162.4
1977.....	136.6	137.4	112.6	115.3	121.3	119.1	212.6	208.7	175.3	175.2	172.3	171.9
1978.....	143.0	144.0	118.1	121.2	121.1	118.9	230.5	226.4	190.4	190.4	185.1	183.9
1979.....	147.1	148.0	122.0	125.4	120.6	117.9	253.4	248.0	210.1	210.2	201.4	199.7

¹ Output refers to gross domestic product originating in the sector in 1972 dollars.

² Hours 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 Current dollar gross domestic product divided by constant dollar gross domestic product.

Note.—Preliminary estimate based on benchmark revisions of national income and product accounts; revised data to be published by Bureau of Labor Statistics the end of January 1981.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B-39.—Changes in productivity and related data, private business sector, 1948-79

[Percent change from preceding period]

Year	Output ¹		Hours of all persons ²		Output per hour of all persons		Compensation per hour ³		Unit labor cost		Implicit price deflator ⁴	
	Private business sector	Nonfarm business sector	Private business sector	Nonfarm business sector	Private business sector	Nonfarm business sector	Private business sector	Nonfarm business sector	Private business sector	Nonfarm business sector	Private business sector	Nonfarm business sector
1948	6.1	6.0	0.7	1.6	5.3	4.3	8.5	8.6	3.0	4.1	7.0	6.8
1949	-1.9	-1.9	-3.3	-3.8	1.5	2.0	1.6	2.9	.1	.9	-1.0	.9
1950	9.1	9.4	1.1	3.1	7.9	6.0	7.1	5.8	-.8	-.2	1.6	1.7
1951	5.8	6.5	2.9	4.6	2.8	1.7	9.8	8.8	6.9	6.9	7.4	6.6
1952	3.3	3.4	.1	1.0	3.2	2.3	6.4	5.5	3.0	3.1	1.1	1.8
1953	4.3	4.2	1.0	2.5	3.2	1.7	6.4	5.6	3.1	3.9	.9	2.0
1954	-1.8	-2.0	-3.3	-3.4	1.6	1.4	3.2	3.2	1.6	1.7	1.0	1.4
1955	7.9	8.2	3.8	4.1	4.0	3.9	2.5	3.6	-1.4	-.3	1.6	2.2
1956	2.6	2.8	1.5	2.5	1.0	.3	6.5	6.0	5.5	5.7	3.3	3.5
1957	1.0	1.2	-1.5	-.5	2.5	1.7	6.5	5.7	3.9	3.9	3.5	3.6
1958	-1.6	-1.9	-4.5	-4.2	3.1	2.4	4.4	3.8	1.3	1.4	1.3	.9
1959	5.6	6.1	3.9	4.4	1.6	1.6	4.3	4.0	2.7	2.3	3.6	4.0
1960	3.3	3.2	.2	.6	3.1	2.5	4.2	4.3	1.1	1.8	-.2	-.2
1961	1.7	1.8	-1.5	-1.1	3.3	2.9	3.8	3.2	.5	.3	.6	.6
1962	5.5	5.8	1.6	2.2	3.8	3.6	4.6	4.0	.7	.4	1.5	1.5
1963	4.3	4.4	.6	1.1	3.7	3.2	3.7	3.5	.0	.2	-1.1	1.2
1964	6.0	6.4	1.6	2.4	4.3	3.9	5.2	4.5	-.8	.6	1.0	1.2
1965	6.8	6.9	3.2	3.7	3.5	3.1	3.9	3.4	.3	.3	1.9	1.6
1966	5.5	5.9	2.3	3.4	3.1	2.5	7.0	6.0	3.8	3.5	3.0	2.8
1967	2.2	2.1	.0	.3	2.2	1.9	5.5	5.6	3.2	3.7	2.7	3.2
1968	5.1	5.3	1.7	2.0	3.3	3.3	7.7	7.4	4.2	3.9	4.0	4.0
1969	2.9	2.9	2.6	3.2	.2	-.3	7.0	6.5	6.7	6.8	4.9	4.7
1970	-.8	-1.0	-1.7	-1.4	.9	.3	7.4	7.0	6.4	6.6	4.5	4.8
1971	3.0	2.9	-.5	-.4	3.6	3.3	6.6	6.6	2.9	3.1	4.4	4.5
1972	6.6	6.9	3.0	3.1	3.5	3.7	6.5	6.7	2.9	2.8	3.4	3.0
1973	6.6	6.9	3.9	4.2	2.7	2.5	8.0	7.6	5.2	4.9	5.4	3.7
1974	-1.9	-1.9	.4	.4	-2.3	-2.4	9.4	9.4	11.9	12.1	9.4	10.1
1975	-1.9	-2.2	-4.1	-4.2	2.3	2.1	9.6	9.6	7.2	7.4	9.7	10.3
1976	6.3	6.7	2.9	3.4	3.3	3.2	8.6	8.1	5.1	4.7	4.7	5.1
1977	6.3	6.4	4.0	4.3	2.1	2.0	7.7	7.6	5.5	5.5	5.6	5.8
1978	4.7	4.9	4.9	5.1	-.2	-.2	8.4	8.4	8.6	8.7	7.4	7.0
1979	2.8	2.7	3.3	3.5	-.4	-.8	9.9	9.6	10.4	10.4	8.8	8.6

¹ Output refers to gross domestic product originating in the sector in 1972 dollars.² Hours 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 Current dollar gross domestic product divided by constant dollar gross domestic product.

Note.—Percent changes are based on original data and therefore may differ slightly from percent changes based on indexes in Table B-38.

Preliminary estimates based on benchmark revisions of national income and product accounts; revised data to be published by Bureau of Labor Statistics the end of January 1981.

Source: Department of Labor, Bureau of Labor Statistics.

PRODUCTION AND BUSINESS ACTIVITY

TABLE B-40.—Industrial production indexes, major industry divisions, 1929-80

[1967=100; monthly data seasonally adjusted]

Year or month	Total industrial production	Manufacturing			Mining	Utilities
		Total	Durable	Nondurable		
1967 proportion.....	100.00	87.95	51.98	35.97	6.36	5.69
1929.....	21.6	22.8	22.5	23.2	43.1	7.4
1933.....	13.7	14.0	9.1	19.9	30.6	6.7
1939.....	21.7	21.5	17.7	26.1	42.1	10.7
1940.....	25.0	25.4	23.5	27.5	46.8	11.8
1941.....	31.6	32.4	31.4	33.3	49.7	13.3
1942.....	36.3	37.8	39.9	34.6	51.3	14.9
1943.....	44.0	47.0	54.2	37.1	52.5	16.5
1944.....	47.4	50.9	59.9	38.6	56.2	17.5
1945.....	40.7	42.6	45.2	38.5	55.1	17.8
1946.....	35.0	35.3	31.6	39.7	54.2	18.6
1947.....	39.4	39.4	37.7	41.3	61.3	20.1
1948.....	41.1	40.9	39.3	42.7	64.4	22.4
1949.....	38.8	38.7	35.7	42.0	57.1	23.9
1950.....	44.9	45.0	43.5	46.7	63.8	27.2
1951.....	48.7	48.6	48.9	48.3	70.0	31.0
1952.....	50.6	50.6	51.9	49.2	69.4	33.7
1953.....	54.8	55.2	58.7	51.2	71.2	36.5
1954.....	51.9	51.5	51.8	51.6	69.9	39.3
1955.....	58.5	58.2	59.2	57.2	77.9	43.9
1956.....	61.1	60.5	61.1	60.1	82.0	48.2
1957.....	61.9	61.2	61.6	61.1	82.1	51.5
1958.....	57.9	57.0	53.9	61.6	75.3	53.9
1959.....	64.8	64.2	61.9	67.7	78.7	59.3
1960.....	66.2	65.4	62.9	69.3	80.3	63.4
1961.....	66.7	65.6	61.8	71.5	80.8	67.0
1962.....	72.2	71.5	68.6	75.8	83.1	72.0
1963.....	76.5	75.8	73.1	80.0	86.4	77.0
1964.....	81.7	81.0	78.3	85.2	89.9	83.6
1965.....	89.8	89.7	89.0	90.9	93.2	88.7
1966.....	97.8	97.9	98.9	96.7	98.2	95.5
1967.....	100.0	100.0	100.0	100.0	100.0	100.0
1968.....	106.3	106.4	106.5	106.2	104.2	108.4
1969.....	111.1	111.0	110.6	111.5	108.3	117.3
1970.....	107.8	106.4	102.3	112.3	112.2	124.5
1971.....	109.6	108.2	102.4	116.6	109.8	130.5
1972.....	119.7	118.9	113.7	126.5	113.1	139.4
1973.....	129.8	129.8	127.1	133.8	114.7	145.4
1974.....	129.3	129.4	125.7	134.6	115.3	143.7
1975.....	117.8	116.3	109.3	126.4	112.8	146.0
1976.....	130.5	130.3	122.3	141.8	114.2	151.7
1977.....	138.2	138.4	130.0	150.5	118.2	156.5
1978.....	146.1	146.8	139.7	156.9	124.0	161.4
1979.....	152.5	153.6	146.4	164.0	125.5	166.0
1979:						
Jan.....	152.0	153.0	147.0	161.6	124.7	166.5
Feb.....	152.5	153.6	147.2	162.9	122.6	168.1
Mar.....	153.5	154.9	148.6	164.0	123.0	167.6
Apr.....	151.1	151.9	144.5	162.6	123.4	167.2
May.....	152.7	154.1	147.6	163.6	123.3	165.7
June.....	153.0	154.2	147.6	163.7	123.6	164.1
July.....	153.0	154.4	147.2	164.8	124.1	164.2
Aug.....	152.1	152.9	144.4	165.2	126.8	164.6
Sept.....	152.7	153.9	145.9	165.4	126.0	165.4
Oct.....	152.7	153.7	146.0	164.8	127.8	165.7
Nov.....	152.3	153.3	145.2	165.0	129.9	167.2
Dec.....	152.5	153.2	144.8	165.3	131.4	166.9
1980:						
Jan.....	152.7	153.4	144.7	166.0	133.5	164.8
Feb.....	152.6	153.0	144.1	165.9	132.9	167.1
Mar.....	152.1	152.1	143.4	164.7	133.0	172.0
Apr.....	148.3	147.9	138.4	161.6	133.1	169.1
May.....	144.0	143.4	133.3	158.0	133.4	167.7
June.....	141.5	140.3	129.9	155.3	132.9	169.3
July.....	140.4	139.1	128.3	154.7	130.6	171.8
Aug.....	141.8	140.6	129.4	156.9	129.6	173.8
Sept.....	143.9	143.2	131.7	159.8	130.5	171.6
Oct.....	146.5	146.0	135.3	161.4	131.8	170.8
Nov.....	148.5	148.0	137.8	162.7	134.2	171.4

Source: Board of Governors of the Federal Reserve System.

TABLE B-41.—Industrial production indexes, market groupings, 1947-80

[1967=100; monthly data seasonally adjusted]

Year or month	Total industrial production	Final products						Inter-mediate products	Materials ^a		
		Total	Consumer goods ¹		Equipment ²		Total		Durable goods	Non-durable goods	
			Total	Auto-motive products	Home goods	Total					Business
1967 proportion	100.00	47.82	27.68	2.83	5.06	20.14	12.63	12.89	39.29	20.35	10.47
1947	39.4	38.6	42.4	45.3	37.5	30.6	38.0	41.9	39.5	38.3	.....
1948	41.1	40.0	43.7	47.4	39.1	32.2	39.5	44.3	41.2	39.4	.....
1949	38.8	38.8	43.4	47.0	36.2	28.7	34.5	42.0	37.6	35.3	.....
1950	44.9	43.7	49.6	59.1	49.9	31.1	37.0	48.8	45.0	44.4	.....
1951	48.7	47.2	49.1	52.3	43.0	43.3	45.2	51.3	49.8	50.5	.....
1952	50.6	50.7	50.2	47.1	43.0	51.9	51.2	50.9	50.5	51.6	.....
1953	54.8	54.1	53.2	59.5	48.6	56.3	53.3	54.5	56.1	60.3	.....
1954	51.9	51.3	52.9	55.4	44.9	49.3	46.8	54.3	51.8	52.0	45.9
1955	58.5	55.4	59.0	73.6	53.0	50.4	50.8	61.7	61.3	63.7	52.5
1956	61.1	58.6	61.2	60.6	55.7	55.3	58.8	64.4	62.8	63.9	54.9
1957	61.9	60.3	62.6	63.5	54.5	57.5	61.1	64.4	62.8	63.8	54.7
1958	57.9	57.6	62.1	50.5	51.4	51.5	51.5	63.0	56.5	53.7	54.4
1959	64.8	63.2	68.1	63.3	59.0	56.5	57.9	69.5	65.2	64.0	62.1
1960	66.2	65.3	70.7	72.5	59.4	58.1	59.4	70.0	66.1	64.8	63.2
1961	66.7	65.8	72.2	66.1	61.3	57.3	57.7	71.4	66.2	63.3	65.8
1962	72.2	71.4	77.1	80.1	66.5	63.7	62.7	75.7	72.1	70.4	71.3
1963	76.5	75.5	81.3	87.7	71.8	67.5	65.8	79.9	76.7	75.1	75.6
1964	81.7	79.7	85.9	91.9	78.4	71.4	73.7	85.2	82.9	81.9	82.2
1965	89.8	87.6	92.6	113.3	88.9	80.7	84.4	90.6	92.4	93.8	90.3
1966	97.8	95.9	97.3	112.8	97.9	94.0	97.7	96.2	100.7	103.3	97.5
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	106.3	106.2	105.9	119.4	106.4	106.5	105.5	106.3	106.5	106.2	108.8
1969	111.1	109.6	109.8	118.1	113.2	109.3	112.5	112.9	112.5	112.1	115.7
1970	107.8	105.3	109.0	98.8	110.2	100.1	107.0	112.9	109.2	103.8	115.4
1971	109.6	106.3	114.7	124.4	115.6	94.7	104.1	116.7	111.3	104.9	120.2
1972	119.7	115.7	124.4	141.4	129.5	103.8	118.0	126.5	122.3	117.7	132.9
1973	129.8	124.4	131.5	153.0	142.5	114.5	134.2	137.2	133.9	134.6	142.2
1974	129.3	125.1	128.9	132.8	136.8	120.0	142.4	135.3	132.4	132.7	142.6
1975	117.8	118.2	124.0	125.8	118.8	110.2	128.2	123.1	115.5	109.1	126.6
1976	130.5	127.6	137.1	155.7	134.1	114.6	135.4	137.2	131.7	128.0	147.8
1977	138.2	135.9	145.3	175.6	141.9	123.0	147.8	145.1	138.6	136.1	155.6
1978	146.1	142.2	149.1	179.9	147.7	132.8	160.3	154.1	148.3	149.0	165.6
1979	152.5	147.2	150.8	167.7	149.2	142.2	171.3	160.5	156.4	157.8	175.9
1979:											
Jan	152.0	146.5	151.3	182.7	149.2	139.9	168.2	161.0	155.7	158.4	172.1
Feb	152.5	147.1	151.8	179.6	150.6	140.6	169.3	161.3	156.1	158.1	173.6
Mar	153.5	148.6	153.4	186.8	150.8	141.9	171.0	161.4	156.9	159.4	174.2
Apr	151.1	145.4	149.3	163.0	145.6	140.1	168.7	160.1	154.9	155.6	174.1
May	152.7	147.8	152.2	182.7	148.3	141.8	171.2	160.1	156.1	158.1	174.7
June	153.0	147.7	152.1	176.2	149.4	141.7	171.2	160.7	156.8	159.6	174.4
July	153.0	147.4	151.2	168.5	150.2	142.1	171.3	160.3	157.4	160.3	175.5
Aug	152.1	145.8	148.7	147.0	148.6	141.9	171.6	161.3	156.6	157.7	177.1
Sept	152.7	147.3	150.0	157.6	149.5	143.7	173.4	160.6	156.6	157.7	177.8
Oct	152.7	147.3	150.0	159.2	149.7	143.6	172.3	160.6	156.6	157.2	178.8
Nov	152.3	147.1	149.1	150.6	149.0	144.2	172.6	160.2	156.2	155.8	178.5
Dec	152.5	147.2	148.6	141.8	149.4	145.2	174.1	159.6	156.6	155.8	180.2
1980:											
Jan	152.7	147.0	147.9	131.3	148.5	145.8	174.9	160.8	157.0	156.0	181.0
Feb	152.6	147.7	148.4	142.1	145.8	146.6	176.0	159.2	156.5	154.8	179.9
Mar	152.1	147.7	148.6	141.0	145.8	146.6	176.1	158.3	155.3	154.2	177.0
Apr	148.3	145.4	145.3	126.3	142.0	145.6	174.2	150.8	151.0	148.2	173.2
May	144.0	143.1	142.4	118.5	134.6	144.0	171.9	146.2	144.3	139.8	165.2
June	141.5	142.3	142.1	121.6	132.0	142.6	169.8	143.5	140.0	133.8	159.6
July	140.4	142.4	142.0	129.2	127.7	142.9	170.1	144.5	136.5	129.0	156.2
Aug	141.8	142.8	142.7	121.5	132.6	142.9	170.3	147.6	138.6	131.3	159.8
Sept	143.9	143.8	144.1	130.6	134.2	143.3	170.7	150.1	142.1	133.7	169.6
Oct P	146.5	145.6	146.4	141.9	138.2	144.5	171.9	151.3	146.1	139.5	173.6
Nov P	148.5	146.8	147.6	145.6	139.3	145.8	173.4	152.8	149.0	144.2	175.0

¹ Also includes clothing and consumer staples, not shown separately.² Also includes defense and space equipment, not shown separately.³ Also includes energy materials, not shown separately.

Source: Board of Governors of the Federal Reserve System.

TABLE B-42.—Industrial production indexes, selected manufactures, 1947-80

[1967=100; monthly data seasonally adjusted]

Year or month	Durable manufactures							Nondurable manufactures				
	Primary metals		Fabricated metal products	Non-electrical machinery	Electrical machinery	Transportation equipment		Lumber and products	Apparel products	Printing and publishing	Chemicals and products	Foods
	Total	Iron and steel				Total	Motor vehicles and parts					
1967 proportion.....	6.57	4.21	5.93	9.15	8.05	9.27	4.50	1.64	3.31	4.72	7.74	8.75
1947.....	63.3		49.9	39.0	22.2	31.8		58.9	57.8	43.3	19.7	55.8
1948.....	65.8		50.8	39.2	23.0	34.8		61.3	60.3	45.4	21.3	55.2
1949.....	55.4		45.8	33.4	21.6	34.9		54.1	59.7	46.6	21.0	55.9
1950.....	69.7		56.1	37.5	29.6	41.8		65.7	64.3	48.9	26.2	57.9
1951.....	75.8		59.9	47.7	29.8	46.6		65.5	63.1	49.7	29.7	59.0
1952.....	69.2		58.5	51.9	34.0	54.2		64.7	66.3	49.7	31.1	60.2
1953.....	78.5		66.0	54.0	39.0	68.0		68.4	67.2	52.0	33.6	61.4
1954.....	63.5	70.1	59.4	46.1	34.7	59.2	60.5	68.0	66.4	54.1	34.1	62.7
1955.....	82.5	93.2	67.8	50.6	39.9	68.0	81.2	75.9	73.3	59.5	39.8	66.3
1956.....	82.0	91.5	68.8	58.0	43.1	66.0	65.8	75.0	75.0	63.2	42.7	70.1
1957.....	78.5	88.2	70.6	57.9	42.8	70.7	69.0	68.8	74.9	65.4	45.2	71.1
1958.....	62.3	66.5	63.3	48.6	39.2	55.8	51.0	69.9	72.8	63.9	46.6	72.9
1959.....	72.7	76.5	71.0	56.7	47.6	63.2	66.2	79.3	80.1	68.2	54.3	76.5
1960.....	72.4	77.7	71.1	56.9	51.6	65.4	74.7	74.7	81.7	71.0	56.4	78.6
1961.....	71.1	74.2	69.4	55.4	54.8	61.5	65.5	78.2	82.2	71.3	59.2	80.9
1962.....	76.3	77.3	75.4	62.1	62.9	71.1	79.8	82.5	85.5	73.9	65.7	83.4
1963.....	82.3	84.3	77.8	66.3	64.7	78.0	88.3	86.3	89.1	77.8	71.8	86.4
1964.....	92.8	95.9	82.6	75.6	68.4	80.0	90.7	92.7	92.2	82.6	78.8	90.4
1965.....	102.1	105.2	90.8	85.0	81.7	95.1	115.9	96.3	97.4	87.9	87.8	92.4
1966.....	108.4	108.4	97.2	98.8	97.9	102.0	113.9	100.0	99.9	94.6	95.7	96.0
1967.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968.....	104.3	103.2	105.6	101.8	105.5	111.1	120.3	105.5	102.9	103.2	109.5	102.6
1969.....	113.8	112.6	107.9	109.3	111.9	108.4	116.5	107.9	106.7	107.4	118.4	106.1
1970.....	106.6	104.7	102.4	104.4	108.1	89.5	92.3	105.6	101.4	107.0	120.4	108.9
1971.....	100.2	96.1	103.5	100.2	107.7	97.9	118.6	113.8	104.7	107.1	125.9	112.8
1972.....	112.1	107.1	112.1	116.0	122.2	108.2	135.8	120.8	109.4	112.7	143.6	116.8
1973.....	126.7	122.3	124.7	133.7	143.1	118.3	148.8	126.0	117.3	118.2	154.5	120.9
1974.....	123.1	119.8	124.2	140.1	143.8	108.7	128.2	116.2	114.3	118.2	159.4	124.0
1975.....	96.4	95.8	109.9	125.1	116.5	97.4	111.1	107.6	107.6	113.3	147.2	123.4
1976.....	109.7	104.8	123.9	134.5	134.8	111.1	142.0	123.2	125.7	122.5	170.9	133.0
1977.....	111.1	103.8	131.0	143.6	145.4	122.2	161.1	131.2	134.2	127.6	185.7	138.8
1978.....	119.9	113.2	141.6	153.6	159.4	132.5	169.9	136.3	134.2	131.5	197.4	142.7
1979.....	121.3	113.2	148.5	163.7	174.0	135.4	159.9	136.9	134.4	136.9	211.8	147.5
1979:.....												
Jan.....	123.3	113.3	149.1	161.2	171.2	141.5	178.7	137.3	136.0	135.6	207.5	143.9
Feb.....	120.4	110.8	150.8	162.9	173.1	140.0	173.3	137.2	138.0	138.2	209.7	145.3
Mar.....	123.8	116.2	150.2	164.1	174.3	143.4	179.7	137.7	138.5	137.3	210.4	147.4
Apr.....	122.0	115.8	148.8	161.4	170.6	131.6	156.0	137.2	134.0	135.7	209.3	146.8
May.....	121.2	114.3	150.3	164.4	174.6	141.8	175.8	135.8	133.1	136.8	211.2	148.3
June.....	124.2	118.1	149.3	164.6	175.1	139.3	169.0	136.8	136.4	136.9	209.6	149.0
July.....	126.7	119.0	149.3	165.5	174.7	135.2	159.2	135.2	132.7	135.6	211.8	148.9
Aug.....	121.1	112.0	147.6	166.3	172.1	125.2	138.5	138.5	132.5	137.7	214.8	147.5
Sept.....	122.1	115.0	146.5	165.2	176.7	131.8	150.3	138.6	135.7	137.2	212.8	148.1
Oct.....	118.4	108.8	147.5	162.9	177.3	133.3	150.1	138.7	131.5	137.2	212.9	147.7
Nov.....	117.1	108.1	146.9	162.9	179.5	128.3	139.3	135.9	133.5	136.2	215.3	147.9
Dec.....	115.3	106.6	146.2	163.0	181.6	127.3	137.1	132.4	131.1	137.8	216.8	148.4
1980:.....												
Jan.....	116.4	107.2	145.0	167.1	181.7	122.1	126.2	131.6	131.5	138.9	218.0	148.5
Feb.....	111.9	103.4	145.7	167.0	179.2	125.7	133.9	130.2	133.8	139.9	217.4	149.0
Mar.....	113.7	105.9	145.5	166.5	179.2	123.8	130.1	125.3	136.1	139.2	213.6	149.3
Apr.....	106.4	97.4	141.4	163.2	177.0	115.1	114.7	105.2	131.3	136.5	209.1	147.8
May.....	96.1	84.4	133.2	162.1	171.4	109.8	105.9	104.5	128.6	135.5	199.2	149.5
June.....	90.4	75.4	126.1	158.3	166.6	110.0	106.7	109.7	127.2	135.4	191.1	149.0
July.....	81.7	68.1	123.8	158.5	165.0	110.7	107.9	112.8	121.5	138.6	190.3	148.9
Aug.....	86.0	75.3	125.8	158.8	166.7	108.3	104.4	121.7	123.8	140.3	197.8	148.3
Sept.....	89.9	79.8	129.0	159.1	167.8	112.9	113.4	122.7		140.1	206.0	148.7
Oct P.....	100.0	93.8	132.4	160.5	169.9	118.9	124.7	121.4		141.5	210.4	149.2
Nov P.....	107.7		134.6	161.5	171.9	120.9	128.3			142.4		

Source: Board of Governors of the Federal Reserve System.

TABLE B-43.—Capacity utilization rate in manufacturing, 1948-80

[Percent; quarterly data seasonally adjusted]

Year or quarter	FRB series ¹			Commerce series ²					Wharton series ³		
	Total manufacturing	Primary processing	Advanced processing	Total manufacturing	Durable goods	Non-durable goods	Primary-processed goods	Advanced-processed goods	Total manufacturing	Durable goods	Non-durable goods
1948.....	82.5	87.2	80.0								
1949.....	74.2	76.2	73.3								
1950.....	82.8	88.5	79.8								
1951.....	85.8	90.2	83.4								
1952.....	85.4	84.9	85.9								
1953.....	89.2	89.4	89.3								
1954.....	80.3	80.6	80.1						88.1	85.3	92.0
1955.....	87.1	92.1	84.3						90.5	88.3	93.6
1956.....	86.4	89.7	84.5						87.9	85.3	91.5
1957.....	83.7	84.7	83.1						84.0	81.6	87.5
1958.....	75.2	75.4	75.1						74.2	68.0	83.1
1959.....	81.9	83.4	81.1						78.9	73.7	86.3
1960.....	80.2	79.8	80.4						76.9	71.9	84.1
1961.....	77.4	77.9	77.2						73.7	67.7	82.5
1962.....	81.6	81.6	81.7						76.5	71.8	83.3
1963.....	83.5	83.8	83.4						77.7	73.4	83.8
1964.....	85.6	87.8	84.6						79.5	75.6	85.2
1965.....	89.6	91.1	88.9	86	88	85	89	85	84.2	82.3	86.9
1966.....	91.1	91.4	91.2	86	87	86	88	85	88.2	88.0	88.5
1967.....	86.9	85.7	87.6	84	83	85	87	83	86.9	86.2	87.9
1968.....	87.1	87.7	86.8	85	84	86	86	84	89.2	88.8	89.8
1969.....	86.2	88.5	85.0	85	84	86	87	84	90.1	89.4	91.1
1970.....	79.3	82.9	77.4	81	78	83	83	79	84.0	80.6	88.8
1971.....	78.4	82.3	76.3	80	78	83	82	80	82.6	78.1	89.0
1972.....	83.5	88.2	81.0	83	82	85	85	82	87.7	84.2	92.9
1973.....	87.6	92.5	85.0	86	85	86	89	84	92.9	91.5	94.9
1974.....	83.8	87.8	81.5	83	82	84	85	82	90.2	88.7	92.4
1975.....	72.9	73.7	72.5	77	76	79	76	77	79.4	75.9	84.4
1976.....	79.5	81.9	78.2	81	81	82	82	81	85.5	81.8	90.7
1977.....	81.9	84.0	80.8	83	84	82	83	83	88.1	84.8	92.8
1978.....	84.4	86.9	83.0	84	84	83	84	84	90.9	89.2	93.3
1979.....	85.7	88.1	84.3	83	83	82	84	82	92.6	91.7	94.0
1975:											
I.....	70.3	69.9	70.4	75	74	76	75	75	77.0	74.8	80.1
II.....	70.7	70.4	71.0	75	73	78	73	76	77.3	74.1	81.9
III.....	74.6	76.2	73.8	79	78	80	78	79	81.0	77.1	86.6
IV.....	76.1	78.4	74.9	79	77	81	78	79	82.2	77.5	89.0
1976:											
I.....	78.4	81.0	77.0	82	81	82	83	81	84.7	80.4	90.9
II.....	79.5	81.9	78.1	82	83	81	82	82	85.5	82.0	90.7
III.....	80.0	82.6	78.5	80	79	82	82	79	85.8	82.7	90.4
IV.....	80.0	82.1	78.8	81	81	82	80	82	86.0	82.4	90.9
1977:											
I.....	80.7	82.2	79.8	83	84	82	83	84	86.8	82.9	92.4
II.....	82.1	84.4	80.8	84	86	82	84	84	88.2	84.9	93.0
III.....	82.4	84.5	81.3	82	82	82	82	82	88.5	85.4	92.9
IV.....	82.6	84.7	81.3	82	82	82	82	83	88.7	86.0	92.8
1978:											
I.....	82.0	84.0	80.9	84	84	83	83	84	88.4	85.8	92.1
II.....	83.9	86.3	82.7	84	85	82	84	84	90.4	88.5	93.3
III.....	85.2	87.9	83.7	83	83	82	84	82	91.6	90.2	93.5
IV.....	86.4	89.5	84.6	84	85	83	85	84	93.1	92.4	94.2
1979:											
I.....	86.9	89.0	85.7	84	85	83	85	84	93.7	93.1	94.5
II.....	85.9	88.2	84.7	83	84	82	84	83	92.7	91.9	93.9
III.....	85.3	88.3	83.7	82	82	82	83	81	92.3	91.0	94.1
IV.....	84.4	86.9	83.0	81	80	82	83	80	91.8	90.7	93.4
1980:											
I.....	83.4	85.1	82.5	80	80	81	81	80	91.3	89.8	93.5
II.....	77.9	76.3	78.7	76	74	78	75	76	85.7	83.4	88.9
III.....	75.7	72.9	77.3	76	75	78	74	77	83.5	80.2	88.1

¹ For description of the series, see "Federal Reserve Measures of Capacity and Capacity Utilization," February 1978.² Quarterly data are for last month in quarter. Annual data are averages of the four indexes, except for 1965 (December index) and 1966-67 (averages of June and December indexes). For description of the series, see "Survey of Current Business," July 1974.³ Annual data are averages of quarterly indexes. For description of the series, see F. Gerard Adams and Robert Summers, "The Wharton Index of Capacity Utilization: A Ten Year Perspective," 1973 Proceedings of the Business and Economic Statistics Section, American Statistical Association.

Sources: Board of Governors of the Federal Reserve System, Department of Commerce (Bureau of Economic Analysis), and Wharton School of Finance.

TABLE B-44.—New construction activity, 1929–80

[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 ²
			Total ²	New housing units	Total	Commercial ³	Industrial	Other ⁴			
1929	10.8	8.3	3.6	3.0	4.7	1.1	0.9	2.6	2.5	0.2	2.3
1933	2.9	1.2	.5	.3	.8	.1	.2	.5	1.6	.5	1.1
1939	8.2	4.4	2.7	2.3	1.7	.3	.3	1.2	3.8	.8	3.1
1940	8.7	5.1	3.0	2.6	2.1	.3	.4	1.3	3.6	1.2	2.4
1941	12.0	6.2	3.5	3.0	2.7	.4	.8	1.5	5.8	3.8	2.0
1942	14.1	3.4	1.7	1.4	1.7	.2	.3	1.2	10.7	9.3	1.3
1943	8.3	2.0	.9	.7	1.1	.0	.2	.9	6.3	5.6	.7
1944	5.3	2.2	.8	.6	1.4	.1	.2	1.1	3.1	2.5	.6
1945	5.8	3.4	1.3	.7	2.1	.2	.6	1.3	2.4	1.7	.7
1946	14.3	12.1	6.2	4.8	5.8	1.2	1.7	3.0	2.2	.9	1.4
New series											
1947	20.0	16.7	9.9	7.8	6.9	1.0	1.7	4.2	3.3	.8	2.5
1948	26.1	21.4	13.1	10.5	8.2	1.4	1.4	5.5	4.7	1.2	3.5
1949	26.7	20.5	12.4	10.0	8.0	1.2	1.0	5.9	6.3	1.5	4.8
1950	33.6	26.7	18.1	15.6	8.6	1.4	1.1	6.1	6.9	1.6	5.2
1951	35.4	26.2	15.9	13.2	10.3	1.5	2.1	6.7	9.3	3.0	6.3
1952	36.8	26.0	15.8	12.9	10.2	1.1	2.3	6.8	10.8	4.2	6.6
1953	39.1	27.9	16.6	13.4	11.3	1.8	2.2	7.3	11.2	4.1	7.1
1954	41.4	29.7	18.2	14.9	11.5	2.2	2.0	7.2	11.7	3.4	8.3
1955	46.5	34.8	21.9	18.2	12.9	3.2	2.4	7.3	11.7	2.8	8.9
1956	47.6	34.9	20.2	16.1	14.7	3.6	3.1	8.0	12.7	2.7	10.0
1957	49.1	35.1	19.0	14.7	16.1	3.6	3.6	9.0	14.1	3.0	11.1
1958	50.0	34.6	19.8	15.4	14.8	3.6	2.4	8.8	15.5	3.4	12.1
1959	55.4	39.3	24.3	19.2	15.1	3.9	2.1	9.0	16.1	3.7	12.3
1960	54.7	38.9	23.0	17.3	15.9	4.2	2.9	8.9	15.9	3.6	12.2
1961	56.4	39.3	23.1	17.1	16.2	4.7	2.8	8.7	17.1	3.9	13.3
1962	60.2	42.3	25.2	19.4	17.2	5.1	2.8	9.2	17.9	3.9	14.0
1963	64.8	45.5	27.9	21.7	17.6	5.0	2.9	9.7	19.4	4.0	15.4
1964	67.7	47.3	28.0	21.8	19.3	5.4	3.6	10.3	20.4	3.9	16.5
1965	73.7	51.7	27.9	21.7	23.8	.....	.....	.....	22.1	4.0	18.0
1966	76.4	52.4	25.7	19.4	26.7	.....	.....	.....	24.0	4.0	20.0
1967	78.1	52.5	25.6	19.0	27.0	.....	.....	.....	25.5	3.5	22.1
1968	87.1	59.5	30.6	24.0	28.9	7.8	6.0	15.1	27.6	3.4	24.2
1969	93.9	66.0	33.2	25.9	32.8	9.4	6.8	16.6	28.0	3.3	24.7
1970	94.9	66.8	31.9	24.3	34.9	9.8	6.5	18.6	28.1	3.3	24.8
1971	110.0	80.1	43.3	35.1	36.8	11.6	5.4	19.8	29.9	4.0	25.9
1972	124.1	93.9	54.3	44.9	39.6	13.5	4.7	21.5	30.2	4.4	25.8
1973	137.9	105.4	59.7	50.1	45.7	15.5	6.2	24.0	32.5	4.9	27.7
1974	138.5	100.2	50.4	40.6	49.8	15.9	7.9	25.9	38.3	5.3	33.0
1975	134.5	93.7	46.5	34.4	47.2	12.8	8.0	26.4	40.9	6.3	34.6
1976	151.1	111.9	60.5	47.3	51.4	12.8	7.2	31.5	39.1	7.0	32.1
1977	174.0	135.8	81.0	65.7	54.8	14.8	7.7	32.4	38.2	7.3	30.9
1978	205.5	159.6	93.4	75.8	66.1	18.6	11.0	36.6	45.9	8.4	37.5
1979	229.0	179.9	99.0	78.6	80.9	24.9	15.0	41.0	49.0	8.8	40.2

See next page for continuation of table.

TABLE B-44.—*New construction activity, 1929-80—Continued*

[Value put in place, billions of dollars; monthly data at seasonally adjusted annual rates]

Year or month	Total new construction	Private construction							Public construction		
		Total	Residential buildings ¹		Nonresidential buildings and other construction ¹			Total	Federal	State and local ⁵	
			Total ²	New housing units	Total	Commer- cial ³	Indus- trial				Other ⁴
1979:											
Jan.....	219.7	173.0	101.4	81.5	71.6	20.1	13.3	38.2	46.7	8.6	38.1
Feb.....	213.1	170.7	98.6	77.9	72.1	19.8	14.3	38.0	42.4	7.9	34.5
Mar.....	219.2	173.4	97.1	76.3	76.4	21.7	15.3	39.3	45.7	9.6	36.2
Apr.....	218.0	172.4	96.6	76.8	75.9	22.5	14.6	38.8	45.6	8.1	37.4
May.....	223.0	175.3	96.2	76.8	79.0	24.1	14.7	40.2	47.7	9.0	38.7
June.....	225.7	179.0	97.7	78.4	81.3	25.5	14.8	41.0	46.7	8.2	38.5
July.....	231.0	181.3	98.5	79.0	82.8	25.5	15.9	41.4	49.7	9.0	40.7
Aug.....	231.6	182.0	98.9	79.3	83.1	26.1	14.2	42.8	49.6	9.2	40.3
Sept.....	235.3	184.3	100.4	80.4	83.9	26.4	14.7	42.9	50.9	9.5	41.5
Oct.....	239.9	187.3	101.5	79.9	85.8	27.3	15.6	42.9	52.6	8.4	44.2
Nov.....	239.4	187.4	101.8	79.0	85.6	27.7	15.8	42.0	52.0	8.9	43.1
Dec.....	244.0	191.2	102.1	78.5	89.1	29.4	15.9	43.8	52.9	9.1	43.8
1980:											
Jan.....	259.6	198.1	105.8	80.7	92.3	31.6	15.8	44.9	61.5	9.8	51.6
Feb.....	248.8	191.7	101.5	75.1	90.2	30.7	15.7	43.8	57.0	9.2	47.8
Mar.....	237.1	180.6	94.0	68.4	86.6	29.9	13.9	42.8	56.5	10.8	45.8
Apr.....	225.8	171.5	83.5	60.7	88.0	30.9	13.6	43.5	54.3	10.1	44.3
May.....	218.9	164.8	77.0	55.2	87.8	30.1	14.2	43.5	54.1	9.9	44.2
June.....	215.0	161.3	73.4	51.9	88.0	29.6	15.0	43.4	53.7	8.9	44.7
July.....	214.3	158.6	74.3	52.2	84.3	28.1	13.3	43.0	55.7	11.1	44.6
Aug.....	215.1	162.1	78.6	56.1	83.4	28.0	13.0	42.4	53.1	9.8	43.2
Sept.....	223.7	167.9	84.4	60.8	83.5	27.4	13.1	43.0	55.8	10.3	45.5
Oct.....	226.2	171.1	87.4	63.6	83.7	28.4	13.0	42.3	55.1	9.4	45.7
Nov *.....	231.8	178.0	93.5	69.0	84.4	28.8	13.3	42.4	53.8	10.3	43.5

¹ Beginning 1960, farm residential buildings included in residential buildings; prior to 1960, included in nonresidential buildings and other construction.² Total includes additions and alterations and nonhousekeeping units, not shown separately.³ Office buildings, warehouses, stores, restaurants, garages, etc.⁴ Religious, educational, hospital and institutional, miscellaneous nonresidential, farm (see also footnote 1), public utilities, 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-45.—New housing units started and authorized, 1959-80

[Thousands of units]

Year or month	New housing units started						New private housing units authorized ^a			
	Private and public ¹		Private (farm and nonfarm) ¹			Total	Type of structure			
	Total (farm and nonfarm)	Nonfarm	Total	Type of structure			1 unit	2 to 4 units	5 units or more	
				1 unit	2 to 4 units					5 units or more
1959.....	1,553.7	1,531.3	1,517.0	1,234.0	283.0	1,208.3	938.3	77.1	192.9	
1960.....	1,296.1	1,274.0	1,252.2	994.7	257.4	998.0	746.1	64.6	187.4	
1961.....	1,365.0	1,336.8	1,313.0	974.3	338.7	1,064.2	722.8	67.6	273.8	
1962.....	1,492.5	1,468.7	1,462.9	991.4	471.5	1,186.6	716.2	87.1	383.3	
1963.....	1,634.9	1,614.8	1,603.2	1,012.4	590.8	1,334.7	750.2	118.9	465.6	
1964.....	1,561.0	1,534.0	1,528.8	970.5	108.4	1,285.8	720.1	100.8	464.9	
1965.....	1,509.7	1,487.5	1,472.8	963.7	86.6	1,239.8	709.9	84.8	445.1	
1966.....	1,195.8	1,172.8	1,164.9	778.6	61.1	971.9	563.2	61.0	347.7	
1967.....	1,321.9	1,298.8	1,291.6	843.9	71.6	1,141.0	650.6	73.0	417.5	
1968.....	1,545.4	1,521.4	1,507.6	899.4	80.9	1,353.4	694.7	84.3	574.4	
1969.....	1,499.5	1,482.3	1,466.8	810.6	85.0	1,323.7	625.9	85.2	612.7	
1970.....	1,469.0	(^a)	1,433.6	812.9	84.8	1,351.5	646.8	88.1	616.7	
1971.....	2,084.5	(^a)	2,052.2	1,151.0	120.3	1,924.6	906.1	132.9	885.7	
1972.....	2,378.5	(^a)	2,356.6	1,309.2	141.3	2,218.9	1,033.1	148.6	1,037.2	
1973.....	2,057.5	(^a)	2,045.3	1,132.0	118.3	1,819.5	882.1	117.0	820.5	
1974.....	1,352.5	(^a)	1,337.7	888.1	68.1	1,074.4	643.8	64.3	366.2	
1975.....	1,171.4	(^a)	1,160.4	892.2	64.0	939.2	675.5	63.9	199.8	
1976.....	1,547.6	(^a)	1,537.5	1,162.4	85.9	1,296.2	893.6	93.1	309.5	
1977.....	1,989.8	(^a)	1,987.1	1,450.9	121.7	1,690.0	1,126.1	121.3	442.7	
1978.....	2,023.3	(^a)	2,020.3	1,433.3	125.0	1,800.5	1,182.6	130.6	487.3	
1979.....	1,749.2	(^a)	1,745.1	1,194.1	122.0	1,551.8	981.5	125.4	444.8	
Seasonally adjusted annual rates										
1979:										
Jan.....	88.4	(^a)	1,727	1,175	121	431	1,475	958	126	
Feb.....	84.7	(^a)	1,469	997	93	379	1,491	922	103	
Mar.....	153.3	(^a)	1,800	1,275	119	406	1,692	1,115	130	
Apr.....	161.3	(^a)	1,750	1,273	113	364	1,548	1,044	122	
May.....	189.1	(^a)	1,801	1,229	120	452	1,648	1,052	123	
June.....	192.0	(^a)	1,910	1,276	123	511	1,639	1,028	132	
July.....	165.0	(^a)	1,764	1,222	130	412	1,563	1,015	136	
Aug.....	171.4	(^a)	1,788	1,237	152	399	1,622	1,011	143	
Sept.....	163.8	(^a)	1,874	1,237	123	514	1,695	996	138	
Oct.....	169.0	(^a)	1,710	1,139	129	442	1,478	905	129	
Nov.....	119.2	(^a)	1,522	980	114	428	1,287	773	99	
Dec.....	91.9	(^a)	1,548	1,055	110	383	1,247	776	116	
1980:										
Jan.....	73.4	(^a)	1,419	1,002	127	290	1,271	780	119	
Feb.....	80.6	(^a)	1,330	786	101	443	1,168	708	111	
Mar.....	86.1	(^a)	1,041	617	91	333	968	556	94	
Apr.....	96.6	(^a)	1,030	628	100	302	789	473	63	
May.....	92.0	(^a)	906	628	80	198	825	495	81	
June.....	116.8	(^a)	1,223	757	75	391	1,078	628	93	
July.....	120.8	(^a)	1,265	869	80	316	1,236	781	119	
Aug.....	130.2	(^a)	1,429	1,003	136	290	1,361	857	131	
Sept.....	139.3	(^a)	1,541	1,059	142	340	1,564	914	146	
Oct.....	153.7	(^a)	1,561	1,037	120	404	1,333	819	134	
Nov.....	112.6	(^a)	1,555	987	160	408	1,371	794	144	

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 16,000 permit-issuing places beginning 1978; 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.

Note.—Only the series on private and public nonfarm housing units started is available prior to 1959. See 1976 "Economic Report" for this earlier series.

Source: Department of Commerce, Bureau of the Census.

TABLE B-46.—Nonfarm business expenditures for new plant and equipment, 1947-81

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Total	Plant	Equip- ment	Plant and equipment								
				Manufacturing			Nonmanufacturing					
				Total	Dura- ble goods	Non- durable goods	Total	Min- ing	Transpor- tation	Public utili- ties	Trade and servi- ces ¹	Com- munication and other ²
1947.....	21.80	8.45	13.35	8.73	3.39	5.34	13.07	0.69	2.21	1.64	6.13	2.40
1948.....	25.46	10.35	15.11	9.25	3.54	5.71	16.21	.93	2.66	2.67	6.92	3.04
1949.....	23.54	10.20	13.34	7.32	2.67	4.64	16.22	.88	2.30	3.28	7.13	2.63
1950.....	25.32	10.94	14.37	7.73	3.22	4.51	17.59	.84	2.38	3.42	8.37	2.58
1951.....	30.83	13.08	17.74	11.07	5.12	5.95	19.76	1.11	3.05	3.75	8.83	3.03
1952.....	31.59	13.14	18.45	12.12	5.75	6.37	19.47	1.21	2.99	3.96	8.05	3.25
1953.....	33.58	13.82	19.76	12.43	5.71	6.72	21.16	1.25	2.97	4.61	8.94	3.38
1954.....	33.13	14.09	19.03	12.00	5.49	6.51	21.13	1.29	2.42	4.23	9.59	3.60
1955.....	36.58	15.97	20.60	12.50	5.87	6.62	24.08	1.31	2.60	4.26	11.49	4.42
1956.....	44.76	19.34	25.42	16.33	8.19	8.15	28.43	1.64	3.07	4.78	13.64	5.30
1957.....	48.12	20.94	27.19	17.50	8.59	8.91	30.62	1.69	3.35	5.95	13.68	5.96
1958.....	42.17	19.41	22.76	12.98	6.21	6.77	29.19	1.43	2.34	5.74	14.11	5.58
1959.....	44.78	19.89	24.89	13.76	6.72	7.04	31.02	1.35	3.17	5.46	15.40	5.63
1960.....	48.63	20.94	27.70	16.36	8.28	8.08	32.28	1.29	3.19	5.40	16.15	6.25
1961.....	47.82	21.12	26.70	15.53	7.43	8.10	32.29	1.26	2.82	5.20	16.53	6.48
1962.....	51.28	22.12	29.16	16.03	7.81	8.22	35.25	1.41	3.26	5.12	18.27	7.19
1963.....	53.25	22.23	31.03	17.27	8.64	8.63	35.99	1.26	3.36	5.33	18.57	7.47
1964.....	61.66	24.96	36.70	21.23	10.98	10.25	40.43	1.33	4.46	5.80	20.38	8.46
1965.....	70.43	27.24	43.19	25.41	13.49	11.92	45.02	1.36	5.46	6.49	22.13	9.58
1966.....	82.22	32.21	50.01	31.37	17.23	14.15	50.84	1.42	6.43	7.82	24.69	10.49
1967.....	83.42	32.22	51.20	32.25	17.83	14.42	51.18	1.38	6.34	9.33	23.02	11.11
1968.....	88.45	35.51	52.94	32.34	17.93	14.40	56.11	1.44	6.79	10.52	25.31	12.06
1969.....	99.52	40.54	58.99	36.27	19.97	16.31	63.25	1.77	7.04	11.70	28.31	14.43
1970.....	105.61	44.24	61.36	36.99	19.80	17.19	68.62	2.02	6.95	13.03	29.77	16.85
1971.....	108.53	46.60	61.93	33.60	16.78	16.82	74.93	2.67	5.93	14.70	34.20	17.43
1972.....	120.25	49.35	70.89	35.42	18.22	17.20	84.82	2.88	6.72	16.26	40.00	18.96
1973.....	137.70	56.66	81.04	42.37	22.75	19.62	95.33	3.31	7.41	17.97	45.53	21.12
1974.....	156.98	64.29	92.69	53.21	27.44	25.76	103.78	4.62	8.23	19.83	47.79	23.30
1975.....	157.71	65.21	92.50	54.92	26.33	28.59	102.79	6.10	8.68	19.98	46.23	21.80
1976.....	171.45	71.20	100.25	59.95	28.47	31.47	111.50	7.44	8.89	22.37	49.30	23.51
1977.....	198.08	80.31	117.77	69.22	34.04	35.18	128.87	9.24	9.40	26.79	56.54	26.90
1978.....	231.24	92.70	138.54	79.72	40.43	39.29	151.52	10.21	10.68	29.95	68.66	32.02
1979.....	270.46	105.73	164.73	98.68	51.07	47.61	171.77	11.38	12.35	33.96	79.26	34.83
1980 ³	294.30			114.90	58.25	56.65	179.40	13.50	11.98	34.62	82.28	37.02
1981 ³	326.13			131.12	66.00	65.12	195.00	16.04	12.96	37.64	87.83	40.54
1979: I.....	255.55	102.58	152.97	90.75	46.38	44.37	164.80	11.23	11.43	32.40	76.03	33.71
II.....	265.24	104.19	161.04	94.71	49.25	45.47	170.52	11.01	12.02	34.02	79.03	34.44
III.....	273.15	106.58	166.56	100.11	52.13	47.97	173.04	11.40	12.67	35.05	78.86	35.05
IV.....	284.30	108.60	175.70	106.57	55.03	51.55	177.73	11.86	13.20	34.08	82.69	35.90
1980: I.....	291.89	115.96	175.93	111.77	58.28	53.49	180.13	11.89	12.47	36.26	82.17	37.34
II.....	294.36	116.50	177.86	115.69	59.38	56.32	178.66	12.81	12.09	35.03	81.07	37.66
III.....	296.23	117.59	178.64	116.40	58.19	58.21	179.83	13.86	12.23	35.58	81.19	36.97
IV ³	294.95			115.37	57.42	57.96	179.58	15.25	11.25	31.95	84.87	36.26
1981: I ³	310.59			122.69	60.23	62.46	187.90	16.07	11.50	36.78	84.09	39.48
II ³	323.84			130.57	65.36	65.21	193.27	18.02	11.60	36.21	87.43	40.01

¹ Wholesale and retail trade; finance, insurance, and real estate; and personal, business, and professional services.² "Other" consists of construction; social services and membership organizations; and forestry, fisheries, and agricultural services.³ Planned capital expenditures reported by business in late October-December 1980, corrected for biases.Note.—Revised series; for details, see *Survey of Current Business*, October 1980.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-47.—Sales and inventories in manufacturing and trade, 1947-80

(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
1947				15,513	25,897	1.58				10,200	14,241	1.26
1948	35,260	52,507	1.42	17,316	28,543	1.57	6,808	7,957	1.13	11,135	16,007	1.39
1949	33,788	49,497	1.53	16,126	26,321	1.75	6,514	7,706	1.19	11,149	15,470	1.41
1950	38,596	59,822	1.36	18,634	31,078	1.48	7,695	9,284	1.07	12,268	19,460	1.38
1951	43,356	70,242	1.55	21,714	39,306	1.66	8,587	9,886	1.16	13,046	21,050	1.64
1952	44,840	72,377	1.58	22,529	41,136	1.78	8,782	10,210	1.12	13,529	21,031	1.52
1953	47,987	76,122	1.58	24,843	43,948	1.76	9,052	10,686	1.17	14,091	21,488	1.53
1954	46,443	73,175	1.60	23,355	41,612	1.81	8,993	10,637	1.18	14,095	20,926	1.51
1955	51,694	79,516	1.47	26,480	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	87,095	1.60	27,247	50,241	1.84	10,257	12,739	1.24	16,696	24,113	1.43
1959	59,729	92,129	1.50	30,286	52,945	1.70	11,491	13,879	1.15	17,951	25,305	1.40
1960	60,827	94,713	1.56	30,879	53,780	1.75	11,656	14,120	1.22	18,294	26,813	1.45
1961	61,159	95,594	1.54	30,923	54,885	1.74	11,988	14,488	1.20	18,249	26,221	1.43
1962	65,662	101,063	1.50	33,357	58,186	1.70	12,674	14,936	1.16	19,630	27,941	1.38
1963	68,995	105,480	1.49	35,058	60,046	1.69	13,382	16,048	1.15	20,556	29,386	1.39
1964	73,682	111,503	1.47	37,331	63,409	1.64	14,529	17,000	1.14	21,823	31,094	1.40
1965	80,283	120,907	1.45	40,995	68,185	1.60	15,611	18,317	1.15	23,677	34,405	1.39
1966	87,187	136,790	1.47	44,870	77,952	1.62	16,987	20,765	1.15	25,330	38,073	1.44
1967	90,348	145,335	1.56	46,487	84,659	1.75	19,448	25,377	1.25	24,413	35,298	1.43
1968	98,143	156,166	1.54	50,268	90,617	1.74	20,846	26,604	1.25	27,030	38,945	1.38
1969	105,042	169,841	1.55	53,540	98,210	1.77	22,609	29,114	1.23	28,893	42,517	1.41
1970	107,475	178,337	1.62	52,832	101,667	1.90	23,943	32,803	1.29	30,700	43,867	1.41
1971	116,035	188,563	1.58	55,925	102,677	1.83	26,257	35,823	1.30	33,853	50,063	1.41
1972	130,049	203,161	1.50	63,042	108,296	1.67	29,584	39,786	1.27	37,422	55,079	1.40
1973	152,237	234,163	1.43	72,954	124,672	1.58	36,822	46,254	1.17	42,461	63,237	1.40
1974	175,741	285,519	1.47	84,821	157,915	1.65	45,836	56,537	1.12	45,083	71,067	1.48
1975	180,263	285,035	1.58	86,617	158,178	1.83	44,633	55,113	1.24	49,013	71,744	1.44
1976	202,001	310,736	1.48	98,810	170,156	1.66	48,408	61,307	1.21	54,784	79,273	1.38
1977	224,786	337,432	1.44	110,842	180,224	1.59	53,509	67,998	1.21	60,435	89,210	1.39
1978	254,297	380,643	1.41	124,714	198,334	1.52	62,842	80,771	1.19	66,741	101,538	1.43
1979	288,388	426,796	1.41	141,000	228,258	1.52	73,551	89,676	1.17	73,837	108,862	1.45
1979:												
Jan	274,091	385,379	1.41	135,213	201,143	1.49	67,585	81,498	1.21	71,293	102,738	1.44
Feb	274,844	389,312	1.42	135,718	203,819	1.50	67,860	82,700	1.22	71,266	102,793	1.44
Mar	283,741	392,630	1.38	141,039	205,752	1.46	70,657	83,558	1.18	72,045	103,320	1.43
Apr	276,406	398,307	1.44	134,398	209,175	1.56	70,402	84,632	1.20	71,606	104,500	1.46
May	286,413	401,945	1.40	141,783	210,881	1.49	72,338	84,904	1.17	72,292	106,160	1.47
June	283,772	406,720	1.43	139,050	213,942	1.54	72,629	85,406	1.18	72,093	107,372	1.49
July	289,994	413,581	1.43	142,094	216,120	1.52	74,778	87,662	1.17	73,121	109,799	1.50
Aug	293,167	417,130	1.42	142,708	218,669	1.53	75,588	88,280	1.17	74,871	110,181	1.47
Sept	296,760	418,461	1.41	143,614	221,341	1.54	76,480	88,372	1.16	76,666	108,748	1.42
Oct	298,452	422,710	1.42	145,547	223,476	1.54	77,322	88,819	1.15	75,583	110,415	1.46
Nov	298,949	425,952	1.43	144,326	226,483	1.57	78,203	89,086	1.14	76,421	110,383	1.44
Dec	302,117	426,796	1.41	146,289	228,258	1.56	78,678	89,676	1.14	77,150	108,862	1.41
1980:												
Jan	312,458	431,420	1.38	152,088	232,294	1.53	80,906	90,690	1.12	79,464	108,436	1.36
Feb	310,181	435,155	1.40	152,889	235,096	1.54	79,299	91,342	1.15	77,993	108,717	1.39
Mar	305,165	439,114	1.44	150,081	238,522	1.59	78,550	91,497	1.17	76,534	109,095	1.43
Apr	294,998	445,170	1.51	143,596	242,540	1.69	76,391	92,378	1.21	75,011	110,252	1.47
May	292,478	445,801	1.52	141,515	243,402	1.72	76,376	92,562	1.21	74,587	109,837	1.47
June	294,203	447,031	1.52	141,573	243,630	1.72	76,629	93,633	1.22	76,001	109,768	1.44
July	304,154	449,510	1.48	145,678	244,105	1.68	80,189	94,619	1.18	78,287	110,786	1.42
Aug	308,019	451,951	1.47	146,643	243,517	1.66	82,606	97,111	1.18	78,770	111,323	1.41
Sept	318,321	454,566	1.43	152,764	243,615	1.59	85,470	98,111	1.15	80,087	112,840	1.41
Oct	325,838	456,532	1.40	156,697	242,876	1.55	88,532	99,275	1.12	80,609	114,381	1.42
Nov	329,140	458,235	1.39	158,386	244,186	1.54	88,821	99,879	1.12	81,933	114,170	1.39
Dec P										80,830		

¹ Monthly average for year and total for month.² Seasonally adjusted, end of period.³ Inventory/sales ratio. For annual periods, ratio of weighted average inventories to average monthly sales; for monthly data, 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.

The inventory figures in this table do not agree with the estimates of change in business inventories included in the gross national product since these figures cover only manufacturing and trade rather than all business, and show inventories in terms of current book value without adjustment for revaluation.

Source: Department of Commerce (Bureau of Economic Analysis and Bureau of the Census).

TABLE B-48.—*Manufacturers' shipments and inventories, 1947-80*

[Millions of dollars; monthly data seasonally adjusted]

Year or month	Shipments ¹			Inventories ²								
	Total	Durable goods industries	Non-durable goods industries	Total	Durable goods industries			Nondurable goods industries				
					Total	Materials and supplies	Work in process	Finished goods	Total	Materials and supplies	Work in process	Finished goods
1947	15,513	6,694	8,819	25,897	13,061				12,836			
1948	17,316	7,579	9,738	28,543	14,662				13,881			
1949	16,126	7,191	8,935	26,321	13,060				13,261			
1950	18,634	8,845	9,789	31,078	15,539				15,539			
1951	21,714	10,493	11,221	39,306	20,991				18,315			
1952	22,529	11,313	11,216	41,136	23,731				17,405			
1953	24,843	13,349	11,494	43,948	25,878	8,966	10,720	6,206	18,070	8,317	2,472	7,409
1954	23,355	11,828	11,527	41,612	23,710	7,894	9,721	6,040	17,902	8,167	2,440	7,415
1955	26,480	14,071	12,409	45,069	26,405	9,194	10,756	6,348	18,664	8,556	2,571	7,666
1956	27,740	14,715	13,025	50,642	30,447	10,417	12,317	7,565	20,195	8,971	2,721	8,622
1957	28,736	15,237	13,499	51,871	31,728	10,608	12,837	8,125	20,143	8,775	2,864	8,624
1958	27,247	13,563	13,684	50,241	30,258	10,032	12,387	7,839	19,983	8,662	2,828	8,491
1959	30,286	15,609	14,677	52,945	32,077	10,776	13,063	8,239	20,868	9,080	2,944	8,845
1960	30,879	15,883	14,996	53,780	32,371	10,353	12,772	9,245	21,409	9,082	2,946	9,380
1961	30,923	15,616	15,307	54,885	32,544	10,279	13,203	9,063	22,341	9,493	3,110	9,738
1962	33,357	17,262	16,095	58,186	34,632	10,810	14,159	9,662	23,554	9,813	3,296	10,444
1963	35,058	18,280	16,778	60,046	35,866	11,068	14,871	9,925	24,180	9,978	3,406	10,796
1964	37,331	19,637	17,694	63,409	38,506	11,970	16,191	10,344	24,903	10,131	3,511	11,261
1965	40,995	22,221	18,774	68,185	42,257	13,325	18,075	10,854	25,928	10,448	3,806	11,674
1966	44,870	24,649	20,220	77,952	49,920	15,489	21,939	12,491	28,032	11,155	4,204	12,673
1967	46,487	25,267	21,220	84,659	54,996	16,454	25,001	13,542	29,662	11,715	4,423	13,524
1968	50,268	27,698	22,570	90,617	58,871	17,389	27,314	14,167	31,746	12,289	4,849	14,608
1969	53,540	29,477	24,064	98,210	64,739	18,710	30,377	15,651	33,471	12,726	5,124	15,621
1970	52,832	28,215	24,617	101,667	66,790	19,198	29,836	17,756	34,877	13,154	5,275	16,448
1971	55,925	29,973	25,952	102,677	66,313	19,778	28,654	17,882	36,364	13,680	5,669	17,015
1972	63,042	34,043	28,999	108,296	70,308	20,893	30,819	18,597	37,987	14,676	5,983	17,328
1973	72,954	39,703	33,251	124,672	81,426	26,062	35,446	19,818	43,245	18,134	6,713	18,398
1974	84,821	44,253	40,568	157,915	101,866	35,226	42,683	23,956	56,048	23,689	8,179	24,180
1975	86,617	43,678	42,939	158,178	101,766	33,629	42,923	25,214	56,412	23,199	8,692	24,521
1976	98,810	50,697	48,113	170,156	109,095	36,562	44,843	27,690	61,061	25,056	9,576	26,429
1977	110,842	58,010	52,832	180,224	115,751	38,785	47,030	29,937	64,472	25,316	10,152	29,005
1978	124,714	66,505	58,210	198,334	129,456	41,480	55,523	32,454	68,878	26,719	10,729	31,430
1979	141,000	73,981	67,019	228,258	151,689	48,857	66,837	35,994	76,569	30,257	11,774	34,538
1979:												
Jan.	135,213	72,779	62,434	201,143	131,892	42,178	56,326	33,388	69,251	27,084	10,859	31,309
Feb.	135,718	73,335	62,383	203,819	134,021	42,751	57,226	34,045	69,798	27,353	10,978	31,467
Mar.	141,039	75,763	65,276	205,752	135,266	43,493	57,720	34,054	70,485	27,669	10,994	31,822
Apr.	134,398	71,199	63,199	209,175	137,851	43,904	59,009	34,938	71,323	28,040	11,142	32,141
May	141,783	75,515	66,268	210,881	139,325	44,430	59,950	34,944	71,556	28,058	11,222	32,276
June	139,050	72,797	66,253	213,942	141,480	44,803	61,411	35,267	72,462	28,269	11,380	32,813
July	142,094	73,875	68,220	216,120	143,141	45,524	61,927	35,691	72,979	28,527	11,522	32,930
Aug.	142,708	74,363	68,345	218,669	144,658	46,378	62,607	35,671	74,011	29,109	11,621	33,281
Sept.	143,614	74,201	69,414	221,341	146,048	46,417	63,810	35,821	75,293	29,353	11,888	34,052
Oct.	145,547	75,544	70,003	223,476	148,136	47,362	64,859	35,914	75,340	29,644	11,860	33,836
Nov.	144,326	73,751	70,574	226,483	150,476	48,416	66,145	35,916	76,007	30,084	11,894	34,027
Dec.	146,289	74,191	72,098	228,258	151,689	48,857	66,837	35,994	76,569	30,257	11,774	34,538
1980:												
Jan.	152,088	77,948	74,140	232,294	154,043	49,627	67,951	36,465	78,251	30,873	12,065	35,313
Feb.	152,889	79,159	73,730	235,096	155,314	50,248	68,397	36,669	79,782	31,418	12,269	36,095
Mar.	150,081	75,925	74,156	238,522	157,127	50,347	69,585	37,195	81,395	31,967	12,687	36,741
Apr.	143,596	72,207	71,389	242,540	159,877	51,086	70,594	38,197	82,663	32,322	12,774	37,567
May	141,515	69,443	72,072	243,402	160,607	50,665	71,411	38,531	82,795	32,406	12,708	37,681
June	141,573	69,056	72,517	243,630	160,404	50,177	71,891	38,336	83,226	32,338	12,611	38,277
July	145,678	72,544	73,134	244,105	160,875	50,032	72,126	38,717	83,230	32,314	12,634	38,282
Aug.	146,643	72,057	74,586	243,517	161,081	49,136	73,113	38,832	82,436	31,461	12,620	38,355
Sept.	152,764	76,571	76,193	243,615	160,691	49,007	73,209	38,475	82,924	31,918	12,725	38,281
Oct.	156,697	79,497	77,200	244,876	160,137	48,722	73,037	38,378	82,739	32,139	12,551	38,049
Nov *	158,386	80,268	78,118	244,186	160,865	48,796	73,693	38,376	83,321	32,278	12,790	38,253

¹ Monthly average for year and total for month.² Book value, seasonally adjusted, end of period.

Note.—Data beginning 1958 are not strictly comparable with earlier data.

Source: Department of Commerce, Bureau of the Census.

TABLE B-49.—Manufacturers' new and unfilled orders, 1947-80

(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							
1947	15,256	6,388		8,868	34,473	28,579	5,894			
1948	17,693	8,126		9,566	30,736	26,619	4,117			
1949	15,614	6,633		8,981	24,045	19,622	4,423			
1950	20,110	10,165		9,945	41,456	35,435	6,021			
1951	23,907	12,841		11,066	67,266	63,394	3,872			
1952	23,204	12,061		11,143	75,857	72,680	3,177			
1953	23,586	12,147		11,439	61,178	58,637	2,541			
1954	22,335	10,768		11,566	48,266	45,250	3,016	3.42	4.12	0.96
1955	27,465	14,996		12,469	60,004	56,241	3,763	3.63	4.27	1.12
1956	28,368	15,365		13,003	67,375	63,880	3,495	3.87	4.55	1.04
1957	27,559	14,111		13,448	53,183	50,352	2,831	3.35	4.00	.85
1958	27,002	13,290		13,712	47,370	44,559	2,811	3.09	3.69	.86
1959	30,724	16,003		14,720	52,732	49,373	3,359	3.01	3.54	.94
1960	30,235	15,303		14,932	45,080	42,514	2,566	2.78	3.37	.72
1961	31,104	15,759		15,345	47,407	44,375	3,032	2.63	3.13	.79
1962	33,436	17,374		16,061	48,577	45,965	2,612	2.69	3.24	.68
1963	35,524	18,709		16,815	54,327	51,270	3,057	2.80	3.37	.73
1964	38,357	20,652		17,705	66,882	63,691	3,191	3.10	3.72	.72
1965	42,100	23,278		18,823	80,071	76,298	3,773	3.33	3.95	.80
1966	46,402	26,177		20,225	98,401	94,575	3,826	3.81	4.55	.76
1967	47,062	25,831		21,231	105,030	101,058	3,972	3.71	4.42	.73
1968	50,684	28,113	7,070	22,571	109,912	105,935	3,977	3.84	4.64	.69
1969	53,967	29,887	7,746	24,079	115,142	110,969	4,173	3.74	4.48	.69
1970	52,068	27,418	6,800	24,650	105,916	101,323	4,593	3.64	4.38	.77
1971	55,990	30,004	7,517	25,986	106,772	101,744	5,028	3.37	4.04	.77
1972	64,162	35,059	8,803	29,104	120,395	114,059	6,336	3.29	3.89	.88
1973	76,183	42,853	11,089	33,330	159,468	152,089	7,379	3.87	4.58	.93
1974	87,157	46,740	12,737	40,417	187,574	182,037	5,537	4.12	4.94	.64
1975	85,082	41,957	10,772	43,125	169,126	161,286	7,840	3.69	4.42	.83
1976	99,184	51,047	12,501	48,137	173,646	165,509	8,137	3.20	3.83	.74
1977	112,451	59,562	15,084	52,889	193,561	184,708	8,852	3.16	3.77	.73
1978	128,488	70,145	18,308	58,344	239,321	228,819	10,502	3.35	3.92	.80
1979	144,335	77,215	21,643	67,120	279,710	267,879	11,831	3.67	4.35	.81
1979:										
Jan	140,822	78,684	21,226	62,138	244,930	234,725	10,205	3.43	4.05	.76
Feb	143,138	80,430	22,483	62,708	252,350	241,820	10,531	3.51	4.13	.79
Mar	146,836	81,649	23,604	65,187	258,148	247,706	10,442	3.44	4.04	.75
Apr	139,232	75,927	20,600	63,305	262,981	252,433	10,548	3.69	4.39	.77
May	143,302	77,037	21,129	66,264	264,500	253,956	10,544	3.52	4.18	.74
June	142,386	76,028	21,704	66,359	267,837	257,187	10,650	3.64	4.32	.75
July	142,620	74,585	21,227	68,035	268,362	257,897	10,465	3.57	4.26	.71
Aug	143,615	74,762	21,077	68,854	269,269	258,295	10,974	3.58	4.24	.76
Sept	147,378	77,647	21,578	69,731	273,033	261,742	11,291	3.63	4.31	.78
Oct	146,610	76,521	21,073	70,089	274,097	262,719	11,378	3.57	4.23	.78
Nov	146,996	75,903	21,754	71,092	276,767	264,871	11,896	3.66	4.35	.81
Dec	149,232	77,199	22,285	72,033	279,710	267,879	11,831	3.67	4.35	.81
1980:										
Jan	155,588	81,467	23,859	74,121	283,211	271,399	11,812	3.53	4.20	.75
Feb	154,603	81,021	21,480	73,582	284,924	273,263	11,661	3.53	4.17	.77
Mar	152,065	77,546	22,590	74,519	286,907	274,884	12,023	3.62	4.30	.79
Apr	143,313	72,416	22,162	70,897	286,629	275,098	11,531	3.75	4.50	.76
May	138,920	67,328	19,589	71,592	284,033	272,981	11,052	3.83	4.61	.74
June	138,582	66,454	19,954	72,128	281,044	270,383	10,661	3.82	4.60	.71
July	147,104	74,228	21,608	72,876	282,463	272,062	10,401	3.71	4.48	.68
Aug	147,180	72,229	19,371	74,951	282,997	272,231	10,766	3.76	4.52	.72
Sept	155,262	78,960	20,860	76,302	285,497	274,622	10,875	3.56	4.26	.69
Oct	158,054	80,693	20,618	77,361	286,849	275,813	11,036	3.51	4.18	.71
Nov	159,629	81,756	21,980	77,873	288,094	277,300	10,794	3.49	4.15	.69

¹ Monthly average for year and total for month.² Seasonally adjusted, end of period.³ Ratio of unfilled orders at end of period to shipments for period; excludes industries with no unfilled orders. Annual figures relate to seasonally adjusted data for December.

Note.—Data beginning 1958 are not strictly comparable with earlier data.

Source: Department of Commerce, Bureau of the Census.

PRICES

TABLE B-50.—Consumer price indexes, major expenditure classes, 1929-80

[1967=100]

Year or month	All items	Food and beverages		Housing				Apparel and upkeep	Transportation	Medical care	Entertainment	Other goods and services	Energy ^a
		Total ¹	Food	Total ²	Rent, residential	Home ownership	Fuel and other utilities ³						
1929.....	51.3		48.3		76.0			48.5					
1933.....	38.8		30.6		54.1			36.9					
1939.....	41.6		34.6	52.2	56.0			42.4	43.0	36.7			
1940.....	42.0		35.2	52.4	56.2			42.8	42.7	36.8			
1941.....	44.1		38.4	53.7	57.2			44.8	44.2	37.0			
1942.....	48.8		45.1	56.2	58.5			52.3	48.1	38.0			
1943.....	51.8		50.3	56.8	58.5			54.6	47.9	39.9			
1944.....	52.7		49.6	58.1	58.6			58.5	47.9	41.1			
1945.....	53.9		50.7	59.1	58.8			61.5	47.8	42.1			
1946.....	58.5		58.1	60.6	59.2			67.5	50.3	44.4			
1947.....	66.9		70.6	65.2	61.1			78.2	55.5	48.1			
1948.....	72.1		76.6	69.8	65.1			83.3	61.8	51.1			
1949.....	71.4		73.5	70.9	68.0			80.1	66.4	52.7			
1950.....	72.1		74.5	72.8	70.4			79.0	68.2	53.7			
1951.....	77.8		82.8	77.2	73.2			86.1	72.5	56.3			
1952.....	79.5		84.3	78.7	76.2			85.3	77.3	59.3			
1953.....	80.1		83.0	80.8	80.3	75.0	83.0	84.6	79.5	61.4			
1954.....	80.5		82.8	81.7	83.2	76.3	83.5	84.5	78.3	63.4			
1955.....	80.2		81.6	82.3	84.3	77.0	85.1	84.1	77.4	64.8			
1956.....	81.4		82.2	83.6	85.9	78.3	87.3	85.8	78.8	67.2			
1957.....	84.3		84.9	86.2	87.5	81.7	89.9	87.3	83.3	69.9			90.1
1958.....	86.6		88.5	87.7	89.1	83.5	91.7	87.5	86.0	73.2			90.3
1959.....	87.3		87.1	88.6	90.4	84.4	93.8	88.2	89.6	76.4			91.8
1960.....	88.7		88.0	90.2	91.7	86.3	95.9	89.6	89.6	79.1			94.2
1961.....	89.6		89.1	90.9	92.9	86.9	97.1	90.4	90.6	81.4			94.4
1962.....	90.6		89.9	91.7	94.0	87.9	97.3	90.9	92.5	83.5			94.7
1963.....	91.7		91.2	92.7	95.0	89.0	98.2	91.9	93.0	85.6			95.0
1964.....	92.9		92.4	93.8	95.9	90.8	98.4	92.7	94.3	87.3			94.6
1965.....	94.5		94.4	94.9	96.9	92.7	98.3	93.7	95.9	89.5			96.3
1966.....	97.2		99.1	97.2	98.2	96.3	98.8	96.1	97.2	93.4			97.8
1967.....	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
1968.....	104.2	103.6	103.6	104.0	102.4	105.7	101.3	105.4	103.2	106.1	105.7	105.2	101.5
1969.....	109.8	108.8	108.9	110.4	105.7	116.0	103.6	111.5	107.2	113.4	111.0	110.4	104.2
1970.....	116.3	114.7	114.9	118.2	110.1	128.5	107.6	116.1	112.7	120.6	116.7	116.8	107.0
1971.....	121.3	118.3	118.4	123.4	115.2	133.7	115.0	119.8	118.6	128.4	122.9	122.4	111.2
1972.....	125.3	123.2	123.5	128.1	119.2	140.1	120.1	122.3	119.9	132.5	126.5	127.5	114.3
1973.....	133.1	139.5	141.4	133.7	124.3	146.7	126.9	126.8	123.8	137.7	130.0	132.5	123.5
1974.....	147.7	158.7	161.7	148.8	130.6	163.2	150.2	136.2	137.7	150.5	139.8	142.0	159.7
1975.....	161.2	172.1	175.4	164.5	137.3	181.7	167.8	142.3	150.6	168.6	152.2	153.9	176.6
1976.....	170.5	177.4	180.8	174.6	144.7	191.7	182.7	147.6	165.5	184.7	159.8	162.7	189.3
1977.....	181.5	188.0	192.2	186.5	153.5	204.9	202.2	154.2	177.2	202.4	167.7	172.2	207.3
1978.....	195.4	206.3	211.4	202.8	164.0	227.2	216.0	159.6	185.5	219.4	176.6	183.3	220.4
1979.....	217.4	228.5	234.5	227.6	176.0	262.4	239.3	166.6	212.0	239.7	188.5	196.7	275.9
1979: Jan.....	204.7	218.3	223.9	213.1	170.3	241.6	221.5	160.7	193.9	230.7	182.3	190.5	231.5
Feb.....	207.1	222.4	228.2	215.6	171.0	245.6	223.3	161.4	195.6	232.6	183.2	191.9	235.0
Mar.....	209.1	224.4	230.4	217.6	171.3	248.2	225.9	164.3	198.1	233.9	184.8	192.8	241.2
Apr.....	211.5	226.3	232.3	219.8	172.0	251.7	227.5	165.4	202.9	235.1	186.5	193.2	250.2
May.....	214.1	228.2	234.3	222.4	173.8	254.9	232.2	166.1	207.7	236.3	187.8	193.9	260.8
June.....	216.6	229.3	235.4	225.5	174.7	258.8	239.0	165.7	212.6	237.7	188.2	194.5	275.4
July.....	218.9	230.7	236.9	228.4	175.9	263.0	243.5	164.3	216.6	239.9	189.1	195.2	287.1
Aug.....	221.1	230.2	236.3	231.5	177.5	267.6	247.2	166.3	219.6	241.8	190.2	197.0	296.3
Sept.....	223.4	231.0	237.1	234.6	179.0	271.9	251.2	169.8	221.4	243.7	191.1	201.7	304.3
Oct.....	225.4	232.1	238.2	237.7	181.4	276.7	252.9	171.0	222.7	245.9	192.0	202.3	307.5
Nov.....	227.5	233.1	239.1	240.8	182.1	282.4	252.0	171.7	224.9	248.0	192.8	202.9	307.8
Dec.....	229.9	235.5	241.7	243.6	182.9	286.9	255.1	172.2	227.7	250.7	193.4	204.0	313.7
1980: Jan.....	233.2	237.5	243.8	247.3	184.1	292.5	258.6	171.0	233.5	253.9	195.3	206.3	327.9
Feb.....	236.4	238.6	244.9	250.5	185.6	296.3	263.8	171.9	239.6	257.9	197.8	208.1	344.6
Mar.....	239.8	241.0	247.3	254.5	186.6	302.0	268.0	176.0	243.7	260.2	200.6	208.9	355.0
Apr.....	242.5	242.8	249.1	257.9	187.0	307.7	270.5	177.3	246.8	262.0	202.5	209.8	358.8
May.....	244.9	244.1	250.4	261.7	188.9	312.9	275.9	177.5	249.0	263.4	204.0	211.2	363.2
June.....	247.6	245.7	252.0	266.7	191.1	320.4	282.2	177.2	249.7	264.7	205.3	212.5	367.8
July.....	247.8	248.3	254.8	265.1	192.1	315.4	285.5	176.2	251.0	266.6	206.6	213.5	370.4
Aug.....	249.4	252.0	258.7	265.8	193.2	315.4	286.8	178.6	252.7	268.4	208.0	214.5	370.7
Sept.....	251.7	254.2	261.1	267.7	195.1	317.6	288.2	182.2	254.7	270.6	209.8	220.6	370.1
Oct.....	253.9	255.5	262.4	271.1	197.1	323.8	287.6	183.9	256.1	272.8	210.9	221.5	368.0
Nov.....	256.2	257.4	264.5	273.8	198.3	329.4	285.7	184.8	259.0	274.5	211.2	222.8	366.1

¹ Includes alcoholic beverages, not shown separately.

² Includes other items, not shown separately. Series beginning 1967 not comparable with series for earlier years.

³ Fuel oil, coal, and bottled gas; gas (piped) and electricity; and other utilities and public services.

⁴ Fuel oil, coal, and bottled gas; gas (piped) and electricity; and gasoline, motor oil, coolant, etc.

Note.—Data beginning 1978 are for all urban consumers; earlier data are for urban wage earners and clerical workers.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B-51.—Consumer price indexes, selected expenditure classes, 1939-80

[1967=100]

Year or month	Food and beverages			Homeownership			Fuel and other utilities						
	Total	Food		Total	Home purchase	Financing, taxes, and insurance	Maintenance and repair	Total	Household fuels			Other utilities and public services	
		Total	At home						Away from home	Total	Fuel oil, coal, and bottled gas		Gas and electricity
1939		34.6								37.1	82.9		
1940		35.2								38.2	82.1		
1941		38.4								40.5	81.4		
1942		45.1								43.1	81.0		
1943		50.3								45.2	80.6		
1944		49.6								47.1	80.3		
1945		50.7								48.0	79.6		
1946		58.1								51.3	77.4		
1947		70.6	73.5							58.4	77.1		
1948		76.6	79.8							68.6	79.1		
1949		73.5	76.7							70.3	81.0		
1950		74.5	77.6							72.7	81.2		
1951		82.8	86.3							76.5	81.5		
1952		84.3	87.8							78.0	82.6		
1953		83.0	86.2	68.9	75.0	86.5		71.2	83.0	81.5	84.2		
1954		82.8	85.8	70.1	76.3	87.1		72.4	83.5	81.2	85.3		
1955		81.6	84.1	70.8	77.0	87.3		74.1	85.1	82.3	87.5		
1956		82.2	84.4	72.2	78.3	87.6		77.2	87.3	85.9	88.4		
1957		84.9	87.2	74.9	81.7	90.0		80.5	89.9	90.3	89.3		
1958		88.5	91.0	77.2	83.5	91.3		81.8	91.7	88.7	92.4		
1959		87.1	88.8	79.3	84.4	91.3		83.2	93.8	89.8	94.7		
1960		88.0	89.6	81.4	86.3	91.8		84.6	95.9	89.2	98.6		
1961		89.1	90.4	83.2	86.9	92.3		85.9	97.1	91.0	99.4		
1962		89.9	91.0	85.4	87.9	93.2		86.5	97.3	91.5	99.4		
1963		91.2	92.2	87.3	89.0	94.2		87.7	98.2	93.2	99.4		
1964		92.4	93.2	88.9	90.8	95.7		89.5	98.4	92.7	99.4		
1965		94.4	95.5	90.9	92.7	97.0		91.3	98.3	94.6	99.4		
1966		99.1	100.3	95.1	96.3	98.6		95.2	98.8	97.0	99.6		
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
1968	103.6	103.6	103.2	105.2	105.7	102.8	108.3	106.1	101.3	101.4	103.1	100.9	101.2
1969	108.8	108.9	108.2	111.6	116.0	109.5	123.7	115.0	103.6	103.4	105.6	102.8	104.0
1970	114.7	114.9	113.7	119.9	128.5	118.3	142.3	124.0	107.6	107.9	110.1	107.3	107.4
1971	118.3	118.4	116.4	126.1	133.7	124.8	143.5	133.7	115.0	115.3	117.5	114.7	114.7
1972	123.2	123.5	121.6	131.1	140.1	130.0	150.8	140.7	120.1	120.1	118.5	120.5	120.6
1973	139.5	141.4	141.4	141.4	146.7	132.7	160.6	151.0	126.9	128.4	136.0	126.4	124.1
1974	158.7	161.7	162.4	159.4	163.2	142.7	181.1	171.6	150.2	160.7	214.6	145.8	130.3
1975	172.1	175.4	175.8	174.3	181.7	160.3	201.9	187.6	167.8	183.8	235.3	169.6	137.1
1976	177.4	180.8	179.5	186.1	191.7	168.4	212.8	199.6	182.7	202.3	250.8	189.0	145.4
1977	188.0	192.2	190.2	200.3	204.9	179.5	227.2	214.7	202.2	228.6	283.4	213.4	152.0
1978	206.3	211.4	210.2	218.4	227.2	196.7	257.8	233.0	216.0	247.4	298.3	232.6	158.3
1979	228.5	234.5	232.9	242.9	262.4	223.1	308.9	256.4	239.3	286.4	403.1	257.8	159.5
1979:													
Jan.	218.3	223.9	223.1	230.2	241.6	208.1	276.6	245.2	221.5	256.3	316.4	239.5	159.0
Feb.	222.4	228.2	228.0	233.4	245.6	210.9	283.5	245.9	223.3	259.3	326.1	241.2	159.0
Mar.	224.4	230.4	229.9	236.0	248.2	212.7	287.7	247.5	225.9	264.0	339.5	244.0	158.8
Apr.	226.3	232.3	231.7	238.4	251.7	215.4	292.1	250.6	227.5	266.8	349.8	245.3	158.8
May	228.2	234.3	233.4	241.1	254.9	217.6	297.2	252.4	232.2	274.6	364.3	251.6	159.0
June	229.3	235.4	234.2	242.7	258.8	220.9	302.2	255.5	239.0	286.2	391.2	259.9	159.2
July	230.7	236.9	235.5	244.9	263.0	224.0	308.6	257.9	243.5	293.8	412.9	264.5	159.4
Aug.	230.2	236.3	233.9	246.5	267.6	226.9	316.4	259.7	247.2	299.7	438.6	266.5	159.8
Sept.	231.0	237.1	234.7	247.6	271.9	229.8	323.0	262.5	251.2	306.6	461.6	270.1	159.8
Oct.	232.1	238.2	235.4	249.6	276.7	233.4	330.5	264.7	252.9	310.3	470.8	272.5	158.8
Nov.	233.1	239.1	236.0	251.3	282.4	237.3	340.1	266.4	252.0	307.0	477.4	267.3	161.0
Dec.	235.5	241.7	238.7	253.4	286.9	239.9	348.3	268.3	255.1	311.8	488.0	270.8	161.9
1980:													
Jan.	237.5	243.8	240.6	256.1	292.5	242.1	359.8	270.6	258.6	318.0	514.0	273.0	161.5
Feb.	238.6	244.9	241.3	258.3	296.3	243.0	367.7	273.7	263.8	327.1	539.1	278.8	161.3
Mar.	241.0	247.3	243.6	260.9	302.0	244.0	379.9	278.8	268.0	333.9	553.4	284.0	161.9
Apr.	242.8	249.1	245.3	263.0	307.7	246.5	390.6	282.9	270.5	337.8	556.4	288.0	162.3
May	244.1	250.4	246.5	264.6	312.9	249.7	399.7	284.9	275.9	346.4	556.0	298.2	163.1
June	245.7	252.0	248.0	266.6	320.4	252.6	416.1	285.9	282.2	355.8	558.7	308.8	164.9
July	248.3	254.8	251.5	267.8	315.4	253.9	399.6	287.6	285.5	360.8	560.4	314.3	165.9
Aug.	252.0	258.7	256.3	269.5	315.4	258.1	393.6	288.5	286.8	362.5	561.5	316.1	166.5
Sept.	254.2	261.1	258.9	271.1	317.6	261.5	393.5	291.6	288.2	364.5	561.5	318.4	167.1
Oct.	255.5	262.4	260.0	273.1	323.8	265.5	404.7	292.8	287.6	362.8	558.7	317.1	167.8
Nov.	257.4	264.5	262.1	275.3	329.4	267.3	416.9	294.2	285.7	358.7	567.0	310.5	169.0

See next page for continuation of table.

TABLE B-51.—Consumer price indexes, selected expenditure classes, 1939-80—Continued

[1967=100]

Year or month	Transportation							Medical care		
	Total	Private					Public transportation	Total	Medical care commodities	Medical care services
		Total	New cars	Used cars	Gasoline	Auto-mobile maintenance and repair				
1939	43.0	44.2	43.2		49.0	43.1	33.1	36.7	71.1	32.5
1940	42.7	43.6	43.3		48.1	43.0	33.1	36.8	70.8	32.5
1941	44.2	45.9	46.6		50.5	44.9	33.1	37.0	71.4	32.7
1942	48.1	52.3			53.4	48.8	33.3	38.0	73.0	33.7
1943	47.9	51.4			54.0	49.4	33.4	39.9	73.5	35.4
1944	47.9	51.4			54.2	50.0	33.5	41.1	74.3	36.9
1945	47.8	51.3			53.8	50.4	33.5	42.1	74.8	37.9
1946	50.3	54.3			54.9	52.0	34.4	44.4	76.2	40.1
1947	55.5	61.5	69.2		62.2	56.4	36.0	48.1	81.8	43.5
1948	61.8	68.2	75.6		70.4	59.6	40.7	51.1	86.1	46.4
1949	66.4	72.3	82.8		72.3	61.1	45.2	52.7	87.4	48.1
1950	68.2	72.5	83.4		71.8	62.3	48.9	53.7	88.5	49.2
1951	72.5	75.8	87.4		73.9	67.0	54.0	56.3	91.0	51.7
1952	77.3	80.8	94.9		75.8	68.6	57.5	59.3	91.8	55.0
1953	79.5	82.4	95.8	89.2	80.3	72.3	61.3	61.4	92.6	57.0
1954	78.3	80.3	94.3	75.9	82.5	74.8	65.5	63.4	93.7	58.7
1955	77.4	78.9	90.9	71.8	83.6	76.5	67.4	64.8	94.7	60.4
1956	78.8	80.1	93.5	69.1	86.5	79.5	70.0	67.2	96.7	62.8
1957	83.3	84.7	98.4	77.4	90.0	82.4	72.7	69.9	99.3	65.5
1958	86.0	87.4	101.5	80.2	88.8	83.7	76.1	73.2	102.8	68.7
1959	89.6	91.1	105.9	89.5	89.9	85.5	78.3	76.4	104.4	72.0
1960	89.6	90.6	104.5	83.6	92.5	87.2	81.0	79.1	104.5	74.9
1961	90.6	91.3	104.5	86.9	91.4	89.3	84.6	81.4	103.3	77.7
1962	92.5	93.0	104.1	94.8	91.9	90.4	87.4	83.5	101.7	80.2
1963	93.0	93.4	103.5	96.0	91.8	91.6	88.5	85.6	100.8	82.6
1964	94.3	94.7	103.2	100.1	91.4	92.8	90.1	87.3	100.5	84.6
1965	95.9	96.3	100.9	99.4	94.9	94.5	91.9	89.5	100.2	87.3
1966	97.2	97.5	99.1	97.0	97.0	96.2	95.2	93.4	100.5	92.0
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	103.2	103.0	102.8	(*)	101.4	105.5	103.4	104.6	106.1	107.3
1969	107.2	106.5	104.4	103.1	104.7	112.2	109.7	112.7	113.4	116.0
1970	112.7	111.1	107.6	104.3	105.6	120.6	119.2	128.5	120.6	103.6
1971	118.6	116.6	112.0	110.2	106.3	129.2	128.4	137.7	128.4	105.4
1972	119.9	117.5	111.0	110.5	107.6	135.1	129.1	143.4	132.5	105.6
1973	123.8	121.5	111.1	117.6	118.1	142.2	127.8	144.8	137.7	109.9
1974	137.7	136.6	117.5	122.6	158.9	156.8	132.4	148.0	150.5	108.6
1975	150.6	149.8	127.6	146.4	170.8	176.6	141.2	158.6	168.6	118.8
1976	165.5	164.6	135.7	167.9	177.9	189.7	163.1	174.2	184.7	126.0
1977	177.2	176.6	142.9	182.8	188.2	203.7	177.3	182.4	202.4	134.1
1978	185.5	185.0	153.8	186.5	196.3	220.6	184.6	187.8	219.4	143.5
1979	212.0	212.3	166.0	201.0	265.6	242.6	198.6	200.3	239.7	153.8
1979:										
Jan.	193.9	193.8	161.2	193.6	209.1	231.3	191.4	190.0	230.7	148.8
Feb.	195.6	195.5	162.3	193.4	213.0	233.9	192.5	190.7	232.6	150.1
Mar.	198.1	198.1	162.7	195.4	220.6	236.3	193.4	191.5	233.9	150.7
Apr.	202.9	203.2	164.3	200.0	234.7	238.2	194.8	192.6	235.1	151.6
May	207.7	208.1	165.8	205.4	247.7	240.1	196.4	193.3	236.3	152.4
June	212.6	213.3	166.3	208.9	265.0	242.0	197.3	194.0	237.7	153.3
July	216.6	217.4	166.7	209.2	280.0	244.0	198.5	197.1	239.9	154.1
Aug.	219.6	220.4	166.6	207.0	292.0	245.7	200.5	200.8	241.8	155.0
Sept.	221.4	222.0	166.1	202.9	301.0	247.1	201.7	205.2	243.7	155.8
Oct.	222.7	223.1	167.5	199.9	303.8	249.1	203.7	209.1	245.9	156.6
Nov.	224.9	225.0	170.6	198.4	306.9	250.8	205.5	216.5	248.0	157.8
Dec.	227.7	227.5	171.7	198.2	313.9	252.6	207.5	223.0	250.7	159.2
1980:										
Jan.	233.5	233.5	173.9	197.2	334.6	255.1	209.8	226.8	253.9	160.5
Feb.	239.6	239.8	175.3	195.3	357.6	258.2	212.6	229.5	257.9	162.1
Mar.	243.7	244.0	175.0	195.2	370.9	260.9	216.5	232.1	260.2	163.5
Apr.	246.8	247.0	177.0	196.7	374.7	264.1	221.3	235.9	262.0	164.9
May	249.0	249.2	178.9	199.3	375.4	266.1	224.5	239.5	263.4	166.4
June	249.7	249.7	178.5	200.7	376.2	267.3	225.0	242.2	264.7	167.9
July	251.0	250.5	179.2	203.4	376.7	269.0	224.5	250.5	266.6	169.1
Aug.	252.7	251.6	181.1	206.4	375.9	271.1	224.7	261.5	268.4	170.2
Sept.	254.7	253.2	181.7	214.6	373.0	273.8	226.0	271.0	270.6	171.3
Oct.	256.1	254.5	181.9	222.7	370.5	276.0	226.5	273.6	272.8	172.5
Nov.	259.0	257.4	184.3	230.8	370.5	278.4	228.8	277.0	274.5	173.8

* Not available.

Note.—Data beginning 1978 are for all urban consumers; earlier data are for urban wage earners and clerical workers.
Source: Department of Labor, Bureau of Labor Statistics.

TABLE B-52.—Consumer price indexes by commodity and service groups, 1939–80

[1967=100]

Year or month	All items	Commodities					Services			Special indexes			
		All commodities	Food	Commodities less food			All services	Rent	Services less rent	All items less food	All items less energy	All items less food and energy	Energy ¹
				All	Durable	Non-durable							
1939	41.6	40.2	34.6	47.7	48.5	44.3	43.5	56.0	38.1	47.2			
1940	42.0	40.6	35.2	48.0	48.1	44.7	43.6	56.2	38.1	47.3			
1941	44.1	43.3	38.4	50.4	51.4	46.7	44.2	57.2	38.6	48.7			
1942	48.8	49.6	45.1	56.0	58.4	51.6	45.6	58.5	40.3	52.1			
1943	51.8	54.0	50.3	58.4	60.3	53.8	46.4	58.5	42.1	53.6			
1944	52.7	54.7	49.6	61.6	65.9	56.6	47.5	58.6	44.2	55.7			
1945	53.9	56.3	50.7	64.1	70.9	58.6	48.2	58.8	45.1	56.9			
1946	58.5	62.4	58.1	68.1	74.1	62.9	49.1	59.2	46.7	59.4			
1947	66.9	75.0	70.6	76.8	80.3	72.2	51.1	61.1	49.0	64.9			
1948	72.1	80.4	76.6	82.7	86.2	77.8	54.3	65.1	51.9	69.6			
1949	71.4	78.3	73.5	81.5	87.4	76.3	56.9	68.0	54.5	70.3			
1950	72.1	78.8	74.5	81.4	88.4	76.2	58.7	70.4	56.0	71.1			
1951	77.8	85.9	82.8	87.5	95.1	82.0	61.8	73.2	59.3	75.7			
1952	79.5	87.0	84.3	88.5	96.4	82.4	64.5	76.2	62.2	77.5			
1953	80.1	86.7	83.0	88.5	95.7	83.1	67.3	80.3	64.8	79.0			
1954	80.5	85.9	82.8	87.5	93.3	83.5	69.5	83.2	66.7	79.5			
1955	80.2	85.1	81.6	86.9	91.5	83.5	70.9	84.3	68.2	79.7			
1956	81.4	85.9	82.2	87.8	91.5	85.3	72.7	85.9	70.1	81.1			
1957	84.3	88.6	84.9	90.5	94.4	87.6	75.6	87.5	73.3	83.8	83.9	83.3	90.1
1958	86.6	90.6	88.5	91.5	95.9	88.2	78.5	89.1	76.4	85.7	86.3	85.2	90.3
1959	87.3	90.7	87.1	92.7	97.3	89.3	80.8	90.4	79.0	87.3	87.0	87.0	91.8
1960	88.7	91.5	88.0	93.1	96.7	90.7	83.5	91.7	81.9	88.8	88.3	88.3	94.2
1961	89.6	92.0	89.1	93.4	96.6	91.2	85.2	92.9	83.9	89.7	89.3	89.3	94.4
1962	90.6	92.8	89.9	94.1	97.6	91.8	86.8	94.0	85.5	90.8	90.4	90.5	94.6
1963	91.7	93.6	91.2	94.8	97.9	92.7	88.5	95.0	87.3	92.0	91.6	91.6	95.0
1964	92.7	94.6	92.4	95.6	98.8	93.5	90.2	95.9	89.2	93.2	92.9	93.0	94.6
1965	94.5	95.7	94.4	96.2	98.4	94.8	92.2	96.9	91.5	94.5	94.3	94.3	96.3
1966	97.2	98.2	99.1	97.5	98.5	97.0	95.8	98.2	95.3	96.7	97.3	96.6	97.8
1967	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
1968	104.2	103.7	103.6	103.7	103.1	104.1	105.2	102.4	105.7	104.4	104.4	104.6	101.5
1969	109.8	108.4	108.9	108.1	107.0	108.8	112.5	105.7	113.8	110.1	110.3	110.7	104.2
1970	116.3	113.5	114.9	112.5	111.8	113.1	121.6	110.1	123.7	116.7	117.0	117.6	107.0
1971	123.1	117.4	118.4	116.8	116.5	117.0	128.4	115.2	130.8	122.1	123.1	123.1	111.2
1972	125.3	120.9	123.5	119.4	118.9	119.8	133.3	119.2	135.9	125.8	126.1	126.9	114.3
1973	133.1	129.9	141.4	123.5	121.9	124.8	139.1	124.3	141.8	130.7	133.8	133.3	125.5
1974	147.7	145.5	161.7	136.6	130.6	140.9	152.1	130.6	156.0	143.7	146.9	142.2	159.7
1975	161.2	158.4	175.4	149.1	145.5	151.7	166.6	137.3	171.9	157.1	160.2	155.3	176.6
1976	170.5	165.2	180.8	156.6	154.3	158.3	180.4	144.7	186.8	167.5	169.2	165.5	189.3
1977	181.5	174.7	192.2	165.1	163.2	166.5	194.3	153.5	201.6	178.4	179.8	178.5	207.3
1978	195.4	187.1	211.4	174.7	173.9	174.3	210.9	164.0	219.4	191.2	193.8	188.7	220.4
1979	217.4	208.4	234.5	195.1	191.1	198.7	234.2	176.0	244.9	213.0	213.1	207.0	275.9
1979:													
Jan.	204.7	195.8	223.9	181.9	182.0	180.3	221.1	170.3	230.4	199.8	202.9	197.0	231.5
Feb.	207.1	198.3	228.2	183.7	183.6	182.2	223.3	171.0	232.9	201.8	205.2	198.8	235.0
Mar.	209.1	200.5	230.4	185.9	184.9	185.7	225.1	171.3	235.0	203.8	206.9	200.4	241.2
Apr.	211.5	203.3	232.3	188.9	187.2	189.6	227.0	172.0	237.1	206.3	208.8	202.3	250.2
May	214.1	205.8	234.3	191.6	189.2	193.2	229.5	173.8	239.8	208.9	210.7	204.1	260.8
June	216.6	208.4	235.4	194.7	191.1	197.6	232.1	174.7	242.6	211.8	212.2	205.8	275.4
July	218.9	210.5	236.9	197.0	192.6	201.1	234.7	175.9	245.6	214.2	213.8	207.3	287.1
Aug.	221.1	212.2	236.3	199.5	193.6	205.4	237.6	177.5	248.8	216.9	215.4	209.4	296.3
Sept.	223.4	214.1	237.1	201.8	194.5	209.6	240.7	179.0	252.1	219.6	217.3	211.5	304.3
Oct.	225.4	215.6	238.2	203.4	196.0	211.3	243.6	181.4	255.1	221.8	219.2	213.6	307.5
Nov.	227.5	217.4	239.1	205.4	198.4	212.9	246.2	182.1	258.2	224.1	221.4	216.1	307.8
Dec.	229.9	219.4	241.7	207.2	199.8	215.2	249.3	182.9	261.6	226.4	223.6	218.1	313.7
1980:													
Jan.	233.2	222.4	243.8	210.4	201.3	220.5	253.1	184.1	266.1	229.9	225.9	220.6	327.9
Feb.	236.4	225.2	244.9	213.8	202.1	227.3	256.8	185.6	270.2	233.5	228.0	222.8	344.6
Mar.	239.8	228.0	247.3	216.7	203.0	232.6	261.3	186.6	275.4	237.1	230.8	227.7	355.0
Apr.	242.5	229.9	249.1	218.6	204.9	234.6	265.3	187.0	280.0	239.9	233.4	228.5	358.8
May	244.9	231.4	250.4	220.2	207.1	235.5	269.2	188.9	284.4	242.6	235.7	231.0	363.2
June	247.6	232.8	252.0	221.4	208.6	236.3	274.2	191.1	290.0	245.5	238.3	233.7	367.8
July	247.8	234.1	254.8	222.2	209.8	236.6	272.4	192.1	287.6	245.1	238.3	233.1	370.4
Aug.	249.4	236.7	258.7	224.2	212.4	237.8	272.5	193.2	287.4	246.3	240.0	234.3	370.7
Sept.	251.7	239.0	261.1	226.6	215.3	239.3	274.8	195.1	289.8	248.6	242.5	236.9	370.1
Oct.	253.9	240.7	262.4	228.3	218.1	239.6	277.9	197.1	293.2	250.9	245.1	239.7	368.0
Nov.	256.2	242.5	264.5	230.0	220.6	240.5	280.9	198.3	296.4	253.2	247.7	242.4	366.1

¹ Fuel oil, coal, and bottled gas; gas (piped) and electricity; and gasoline, motor oil, coolant, etc.

Note.—Data beginning 1978 are for all urban consumers; earlier data are for urban wage earners and clerical workers.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B-53.—Changes in consumer price indexes major groups, 1948-80

[Percent change]

Year or month	All items		Commodities						Services		Energy ¹	
	Dec. to Dec. ²	Year to year	Total		Food		Commodities less food		Dec. to Dec. ²	Year to year	Dec. to Dec. ²	Year to year
			Dec. to Dec. ²	Year to year	Dec. to Dec. ²	Year to year	Dec. to Dec. ²	Year to year				
1948	2.7	7.8	1.7	7.2	-0.8	8.5	5.3	7.7	6.1	6.3		
1949	-1.8	-1.0	-4.1	-2.6	-3.7	-4.0	-4.8	-1.5	3.6	4.8		
1950	5.8	1.0	7.7	.6	9.6	1.4	5.7	-1	3.6	3.2		
1951	5.9	7.9	5.9	9.0	7.4	11.1	4.6	7.5	5.2	5.3		
1952	.9	2.2	-7	1.3	-1.1	1.8	-5	.9	4.6	4.4		
1953	.6	.8	-6	-3	-1.3	-1.5	-2	.2	4.2	4.3		
1954	-5	.5	-1.4	-9	-1.6	-2	-1.4	-1.1	1.9	3.3		
1955	.4	-.4	-.4	-9	-9	-1.4	0	-7	2.3	2.0		
1956	2.9	1.5	2.6	.9	3.1	.7	2.5	1.0	3.1	2.5		
1957	3.0	3.6	2.6	3.1	2.8	3.3	2.2	3.1	4.5	4.0		
1958	1.8	2.7	1.3	2.3	2.2	4.2	.8	1.1	2.7	3.8	-0.7	0.2
1959	1.5	.8	.6	.1	-.8	-1.6	1.5	1.3	3.7	2.9	4.3	1.7
1960	1.5	1.6	1.1	.9	3.1	1.0	-.3	.4	2.7	3.3	1.5	2.6
1961	.7	1.0	0	.5	-.9	1.3	.6	.3	1.9	2.0	-1.1	.2
1962	1.2	1.1	1.0	.9	1.5	.9	.7	.7	1.7	1.9	2.1	.3
1963	1.6	1.2	1.4	.9	1.9	1.4	1.2	.7	2.3	2.0	-.8	
1964	1.2	1.3	.8	1.1	1.4	1.3	.4	.8	1.8	1.9	-.2	-.4
1965	1.9	1.7	1.6	1.2	3.4	2.2	.7	.6	2.6	2.2	2.0	1.8
1966	3.4	2.9	2.5	2.6	3.9	5.0	1.9	1.4	4.9	3.9	1.8	1.6
1967	3.0	2.9	2.5	1.8	1.2	.9	3.1	2.6	4.0	4.4	1.4	2.2
1968	4.7	4.2	3.8	3.7	4.3	3.6	3.7	3.7	6.1	5.2	1.7	1.5
1969	6.1	5.4	5.5	4.5	7.2	5.1	4.5	4.2	7.4	6.9	3.1	2.7
1970	5.5	5.9	4.0	4.7	2.2	5.5	4.8	4.1	8.2	8.1	4.5	2.7
1971	3.4	4.3	2.9	3.4	4.3	3.0	2.3	3.8	4.1	5.6	3.1	3.9
1972	3.4	3.3	3.4	3.0	4.7	4.3	2.5	2.2	3.6	3.8	2.8	2.8
1973	8.8	6.2	10.4	7.4	20.1	14.5	5.0	3.4	6.2	4.4	16.8	8.0
1974	12.2	11.0	12.7	12.0	12.2	14.4	13.2	10.6	11.3	9.3	21.6	29.3
1975	7.0	9.1	6.3	8.9	6.5	8.5	6.2	9.2	8.1	9.5	11.6	10.6
1976	4.8	5.8	3.3	4.3	.6	3.1	5.1	5.0	7.3	8.3	6.9	7.2
1977	6.8	6.5	6.1	5.8	8.0	6.3	4.9	5.4	7.9	7.7	7.2	6.5
1978	9.0	7.7	8.9	7.1	11.8	10.0	7.7	5.8	9.3	8.5	8.0	6.3
1979	13.3	11.3	13.0	11.4	10.2	10.9	14.3	11.7	13.7	11.0	37.4	25.2
Change from preceding month												
	Unad-justed	Seasonally ad-justed	Unad-justed	Seasonally ad-justed	Unad-justed	Seasonally ad-justed	Unad-justed	Seasonally ad-justed	Unad-justed	Seasonally ad-justed	Unad-justed	Seasonally ad-justed
1979:												
Jan.	0.9	0.9	0.8	1.0	2.1	1.4	0.3	0.8	0.9	0.8	1.4	1.6
Feb.	1.2	1.1	1.3	1.2	1.9	1.4	1.0	1.0	1.0	1.1	1.5	1.5
Mar.	1.0	1.0	1.1	1.1	1.0	1.0	1.2	1.1	.8	.8	2.6	2.7
Apr.	1.1	1.0	1.4	1.0	.8	.6	1.6	1.2	.8	.9	3.7	3.5
May	1.2	1.0	1.2	.9	.9	.6	1.4	1.1	1.1	1.2	4.2	3.7
June	1.2	1.0	1.3	1.0	.5	.3	1.6	1.4	1.1	1.0	5.6	4.6
July	1.1	1.1	1.0	1.1	.6	.5	1.2	1.3	1.1	1.1	4.2	3.8
Aug.	1.0	1.0	.8	.9	-.3	.1	1.3	1.3	1.2	1.1	3.2	3.3
Sept.	1.0	1.2	.9	1.2	.3	1.0	1.2	1.3	1.3	1.2	2.7	3.1
Oct.	.9	1.0	.7	.8	.5	.8	.8	.8	1.2	1.2	1.1	1.3
Nov.	.9	1.0	.8	1.0	.4	.7	1.0	1.1	1.1	1.1	.1	.9
Dec.	1.1	1.2	.9	1.1	1.1	1.4	.9	1.1	1.3	1.4	1.9	2.3
1980:												
Jan.	1.4	1.4	1.4	1.4	.9	0	1.5	2.0	1.5	1.4	4.5	4.6
Feb.	1.4	1.4	1.3	1.2	.5	-.0	1.6	1.7	1.5	1.5	5.1	5.1
Mar.	1.4	1.4	1.2	1.2	1.0	1.0	1.4	1.3	1.8	1.9	3.0	3.0
Apr.	1.1	.9	.8	.5	.7	.5	.9	.5	1.5	1.5	1.1	.9
May	1.0	.9	.7	.3	.5	.3	.7	.4	1.5	1.6	1.2	.8
June	1.1	1.0	.6	.3	.6	.5	.5	.3	1.9	1.8	1.3	.3
July	.1	0	.6	.6	1.1	1.0	.4	.5	-.7	-.8	.7	.3
Aug.	.6	.7	1.1	1.2	1.5	1.8	.9	.9	.0	-.1	.1	.2
Sept.	.9	1.0	1.0	1.2	.9	1.6	1.1	1.1	.8	.7	-.2	.2
Oct.	.9	1.0	.7	.8	.5	.8	.8	.8	1.1	1.2	-.6	-.3
Nov.	.9	1.0	.7	1.0	.8	1.1	.7	.9	1.1	1.0	-.5	.3

¹ Fuel oil, coal, and bottled gas; gas (piped) and electricity; and gasoline, motor oil, coolant, etc.² Changes from December to December are based on unadjusted indexes.

Note.—Data beginning 1978 are for all urban consumers; earlier data are for urban wage earners and clerical workers.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B-54.—Changes in special consumer price indexes, 1958-80

(Percent change)

Year or month	All items		All items less food		All items less energy		All items less food and energy		All items less home purchase and finance ¹	
	Dec. to Dec. ²	Year to Year	Dec. to Dec. ²	Year to Year	Dec. to Dec. ²	Year to Year	Dec. to Dec. ²	Year to Year	Dec. to Dec. ²	Year to Year
1958.....	1.8	2.7	1.6	2.3	1.9	2.9	1.8	2.3		
1959.....	1.5	.8	2.3	1.9	1.4	.8	2.2	2.1		
1960.....	1.5	1.6	1.0	1.7	1.4	1.5	.8	1.5		
1961.....	.7	1.0	1.1	1.0	.8	1.1	1.5	1.1		
1962.....	1.2	1.1	1.2	1.2	1.2	1.2	1.1	1.3		
1963.....	1.6	1.2	1.6	1.3	1.8	1.3	1.8	1.2		
1964.....	1.2	1.3	1.0	1.3	1.3	1.4	1.2	1.5		
1965.....	1.9	1.7	1.6	1.4	1.9	1.5	1.5	1.4		
1966.....	3.4	2.9	3.3	2.3	3.5	3.2	3.3	2.4		
1967.....	3.0	2.9	3.5	3.4	3.1	2.8	3.9	3.5		
1968.....	4.7	4.2	4.9	4.4	4.9	4.4	5.1	4.6	4.3	4.1
1969.....	6.1	5.4	5.7	5.5	6.4	5.7	6.1	5.8	5.5	4.7
1970.....	5.5	5.9	6.5	6.0	5.6	6.1	6.6	6.2	4.7	5.1
1971.....	3.4	4.3	3.1	4.6	3.3	4.3	3.1	4.7	3.7	4.5
1972.....	3.4	3.3	3.0	3.0	3.5	3.4	3.0	3.1	3.3	3.1
1973.....	8.8	6.2	5.6	3.9	8.3	6.1	4.7	3.5	3.0	6.6
1974.....	12.2	11.0	12.2	9.9	11.5	9.8	11.3	8.3	12.2	11.1
1975.....	7.0	9.1	7.1	9.3	6.7	9.1	6.7	9.2	6.7	8.8
1976.....	4.8	5.8	6.2	6.6	4.6	5.6	6.1	6.6	5.1	5.8
1977.....	6.8	6.5	6.3	6.5	6.8	6.3	6.4	6.2	6.3	6.5
1978.....	9.0	7.7	8.5	7.2	9.2	7.8	8.5	7.3	8.1	6.9
1979.....	13.3	11.3	14.0	11.4	11.1	10.0	11.3	9.7	11.3	10.0
Change from preceding month										
	Unad-justed	Seasonally ad-justed	Unad-justed	Seasonally ad-justed	Unad-justed	Seasonally ad-justed	Unad-justed	Seasonally ad-justed	Unad-justed	Seasonally ad-justed
1979:										
Jan.....	0.9	0.9	0.6	0.8	0.8	0.9	0.5	0.7	0.9	1.0
Feb.....	1.2	1.1	1.0	1.1	1.1	.9	.9	1.0	1.0	.8
Mar.....	1.0	1.0	1.0	1.0	.8	.8	.8	.8	.9	.9
Apr.....	1.1	1.0	1.2	1.1	.9	.7	.9	.8	1.1	.9
May.....	1.2	1.0	1.3	1.1	.9	.8	.9	.8	1.2	1.0
June.....	1.2	1.0	1.4	1.2	.7	.6	.8	.8	1.1	.9
July.....	1.1	1.1	1.1	1.2	.8	.8	.7	.8	.9	.9
Aug.....	1.0	1.0	1.3	1.2	.7	.8	1.0	1.0	.8	.9
Sept.....	1.0	1.2	1.2	1.2	.9	.9	1.0	.9	.8	.9
Oct.....	.9	1.0	1.0	1.1	.9	.9	1.0	1.0	.6	.8
Nov.....	.9	1.0	1.0	1.1	1.0	1.0	1.2	1.1	.6	.8
Dec.....	1.1	1.2	1.0	1.2	1.0	1.2	.9	1.2	.9	1.0
1980:										
Jan.....	1.4	1.4	1.5	1.8	1.0	1.1	1.1	1.3	1.2	1.3
Feb.....	1.4	1.4	1.6	1.6	.9	.7	1.0	1.1	1.4	1.2
Mar.....	1.4	1.4	1.5	1.5	1.2	1.2	1.3	1.2	1.3	1.3
Apr.....	1.1	.9	1.2	1.1	1.1	1.0	1.2	1.1	.9	.7
May.....	1.0	.9	1.1	1.0	1.0	.9	1.1	1.0	.7	.5
June.....	1.1	1.0	1.2	1.1	1.1	1.0	1.2	1.1	.6	.6
July.....	.1	0	-.2	-.2	0	0	-.3	-.2	.7	.6
Aug.....	.6	.7	.5	.4	.7	.8	.5	.5	.8	1.0
Sept.....	.9	1.0	.9	.9	1.0	1.0	1.1	.9	1.0	1.1
Oct.....	.9	1.0	.9	1.0	1.1	1.2	1.2	1.2	.5	.6
Nov.....	.9	1.0	.9	.9	1.1	1.1	1.1	1.1	.7	.9

¹ All items less home purchase and financing, taxes, and insurance.² Changes from December to December are based on unadjusted indexes.

Note.—Data beginning 1978 are for all urban consumers; earlier data are for urban wage earners and clerical workers.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B-55.—*Producer price indexes by stage of processing, 1947-80*

[1967 = 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	Non-durable		
1947.....	74.0	82.8	99.4	80.2	79.0	74.6	80.7	55.4	80.5	
1948.....	79.9	90.4	107.1	87.6	84.0	79.7	85.8	60.4	86.5	
1949.....	77.6	83.1	101.3	80.1	82.2	81.8	82.3	63.4	82.5	
1950.....	79.0	84.7	92.2	83.4	83.5	82.7	83.6	64.9	83.9	
1951.....	86.5	95.2	105.9	93.2	89.5	88.2	90.0	71.2	91.8	
1952.....	86.0	94.3	112.8	91.3	88.3	88.9	87.8	72.4	90.7	
1953.....	85.1	89.4	105.2	86.7	89.1	89.6	88.6	73.6	89.2	
1954.....	85.3	88.7	94.7	87.6	89.4	90.3	88.9	74.5	89.1	
1955.....	85.5	86.5	98.8	84.4	90.1	91.2	89.4	76.7	88.5	
1956.....	87.9	86.3	98.7	84.3	92.3	94.3	91.1	82.4	89.8	
1957.....	91.1	89.3	97.4	87.9	94.6	97.1	93.2	87.5	92.4	
1958.....	93.2	94.5	103.5	93.1	94.7	98.4	92.6	89.8	94.4	
1959.....	93.0	90.1	94.3	89.5	95.9	99.6	94.0	91.5	93.6	
1960.....	93.7	92.1	100.6	90.7	96.3	99.2	94.7	91.7	94.5	
1961.....	93.7	91.7	96.1	90.9	96.2	98.8	94.7	91.8	94.3	
1962.....	94.0	92.5	97.0	91.7	96.0	98.3	94.8	92.2	94.6	
1963.....	93.7	91.4	95.5	90.7	96.0	97.8	95.1	92.4	94.1	
1964.....	94.1	91.9	98.2	90.8	95.9	98.2	94.8	93.3	94.3	
1965.....	95.7	95.4	98.6	94.9	96.6	97.9	95.9	94.4	96.1	
1966.....	98.8	101.6	104.8	101.0	98.1	98.5	97.8	96.8	99.4	
1967.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
1968.....	102.8	103.6	107.5	103.0	102.6	102.1	102.2	103.5	102.7	
1969.....	106.6	110.0	116.0	108.9	105.4	104.6	105.0	106.9	106.6	
1970.....	110.3	113.5	116.3	113.1	109.1	107.7	106.9	108.3	109.9	
1971.....	113.7	115.3	115.8	115.1	113.1	111.4	110.8	111.7	112.9	
1972.....	117.2	121.7	121.2	121.7	115.4	113.5	113.3	113.6	119.5	
1973.....	127.9	146.4	160.7	143.9	120.1	118.6	115.4	120.5	123.5	
1974.....	147.5	166.9	180.8	164.6	139.3	138.6	125.9	146.8	149.3	
1975.....	163.4	181.0	181.2	181.3	156.2	153.1	138.2	163.0	163.6	
1976.....	170.3	180.2	194.8	177.4	165.5	161.8	144.4	173.3	169.0	
1977.....	180.6	189.2	201.8	186.4	176.2	172.1	152.2	185.4	178.9	
1978.....	194.6	206.7	215.5	204.1	188.9	183.7	165.8	195.4	199.1	
1979.....	216.1	226.3	231.4	223.8	210.8	208.2	181.9	225.9	215.7	
1980 ¹	244.7	238.0	234.1	236.1	244.4	248.5	204.9	278.2	246.7	
1979:										
Jan.....	205.4	220.2	236.7	216.9	198.8	193.4	175.2	205.4	203.7	
Feb.....	207.7	225.1	257.2	220.5	200.2	194.9	176.2	207.2	210.8	
Mar.....	209.1	226.3	244.6	222.8	201.7	196.7	176.8	209.8	211.7	
Apr.....	211.4	227.8	241.8	224.6	204.2	199.3	178.4	213.1	214.0	
May.....	212.7	226.6	226.7	224.4	206.3	202.1	179.5	217.1	215.1	
June.....	213.7	223.6	227.1	221.3	208.5	205.2	180.4	221.7	215.8	
July.....	216.2	224.9	224.9	222.8	211.4	208.9	181.6	227.1	217.2	
Aug.....	217.3	223.5	231.7	220.7	213.2	212.3	181.1	233.4	216.5	
Sept.....	220.7	228.1	214.0	227.0	216.2	216.3	182.9	239.0	217.8	
Oct.....	224.2	226.7	215.5	225.5	221.3	221.4	189.0	243.3	222.8	
Nov.....	226.3	230.5	228.1	228.6	222.8	223.1	190.0	245.5	223.9	
Dec.....	228.1	232.1	227.9	230.3	224.6	225.3	191.8	247.9	225.3	
1980: ¹										
Jan.....	232.4	231.4	226.0	229.7	230.5	232.3	199.1	254.7	233.5	
Feb.....	235.7	231.6	220.1	230.4	234.6	238.3	202.1	262.7	230.5	
Mar.....	238.5	233.1	230.9	231.1	237.8	242.3	200.3	270.9	232.2	
Apr.....	240.5	228.9	222.3	227.2	241.7	246.2	201.2	276.9	236.2	
May.....	241.6	230.0	226.1	228.1	242.8	247.6	201.0	279.6	236.6	
June.....	243.0	231.0	223.6	229.4	244.3	249.5	203.5	281.0	237.7	
July.....	247.1	239.7	233.8	238.0	246.9	251.9	206.6	283.0	240.5	
Aug.....	249.1	244.9	240.8	243.0	248.0	252.8	207.0	284.2	241.8	
Sept.....	248.9	245.8	253.2	242.9	247.4	252.3	204.9	284.7	241.3	
Oct.....	252.2	245.9	231.3	244.8	251.7	255.0	211.0	284.9	248.2	
Nov.....	253.2	246.9	248.2	244.5	252.7	255.9	210.6	287.0	249.1	
Dec.....	254.7	247.2	252.6	244.5	254.5	257.6	211.7	289.1	251.1	

See next page for continuation of table.

TABLE B-55.—*Producer price indexes by stage of processing, 1947-80—Continued*

[1967=100]

Year or month	Intermediate materials, supplies, and components							Crude materials for further processing					
	Total	Foods and feeds*	Other	Materials and components		Processed fuels and lubricants	Containers	Supplies	Total	Food-stuffs and feed-stuffs	Other		
				For manufacturing	For construction						Total	Fuel	Other
1947	72.4		70.0	72.1	66.0	85.5	66.8	77.5	101.2	111.7		66.6	90.6
1948	78.3		76.1	77.8	73.1	96.9	69.8	81.0	110.9	120.8		78.7	100.7
1949	75.2		74.2	74.5	73.2	88.2	70.1	76.3	96.0	100.3		78.3	91.6
1950	78.6		77.7	78.1	77.0	89.9	72.0	78.9	104.6	107.6		77.9	104.7
1951	88.1		87.0	88.5	84.3	93.9	84.5	88.8	120.1	124.5		79.4	120.7
1952	85.5		84.3	84.8	83.7	92.8	79.9	88.8	110.3	117.2		79.9	104.6
1953	86.0		85.3	86.2	85.1	93.4	80.0	84.3	101.9	104.9		82.7	100.1
1954	86.5		85.7	86.3	85.5	93.3	81.5	86.3	101.0	104.9		79.0	98.2
1955	88.1		88.3	88.4	88.9	93.3	82.6	84.8	97.1	95.1		78.8	103.8
1956	92.0		92.6	92.6	93.5	96.2	88.6	87.1	97.6	93.1		84.4	107.6
1957	94.1		95.0	94.8	94.0	101.9	92.5	88.0	99.8	97.2		89.2	106.2
1958	94.3		94.8	95.2	94.0	96.0	94.7	90.0	102.0	103.0		90.3	102.2
1959	95.6		96.4	96.5	96.6	95.6	94.2	91.2	99.4	96.2		91.9	105.8
1960	95.6		96.8	96.5	95.9	98.2	95.5	90.7	97.0	95.1		92.8	101.4
1961	95.0		95.5	95.3	94.6	99.4	94.7	91.8	96.5	93.8		92.6	102.5
1962	94.9		95.3	94.7	94.2	99.0	95.9	93.8	97.5	95.7		92.1	102.0
1963	95.2		95.0	94.9	94.5	98.1	94.7	95.2	95.4	92.9		93.2	100.7
1964	95.5		95.6	95.9	95.4	96.0	94.0	94.3	94.5	90.8		92.8	102.4
1965	96.8		96.9	97.4	96.2	97.4	95.8	95.2	99.3	97.1		93.5	104.5
1966	99.2		98.9	99.3	98.8	99.2	98.4	99.4	105.7	105.9		96.3	106.7
1967	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
1968	102.3	99.4	102.5	102.2	105.0	97.6	102.4	101.0	101.6	101.3	102.2	102.3	102.1
1969	105.8	102.7	106.1	105.8	110.8	98.5	106.3	102.8	108.4	109.3	106.8	106.6	106.9
1970	109.9	109.1	109.9	110.0	112.6	105.0	111.4	108.0	112.3	112.0	112.7	122.6	109.8
1971	114.1	111.7	114.3	112.8	119.7	115.2	116.6	111.0	115.1	114.2	117.0	139.0	110.7
1972	118.7	118.5	118.9	117.0	126.2	118.9	121.9	115.6	127.6	127.5	128.0	148.7	121.9
1973	131.6	168.4	128.1	127.7	136.7	131.5	129.2	140.6	174.0	180.0	162.5	164.5	161.5
1974	162.9	200.2	159.5	162.2	161.6	199.1	152.2	154.5	196.1	189.4	208.9	219.4	205.4
1975	180.0	195.3	178.6	178.7	176.4	233.0	171.4	168.1	196.9	191.8	206.9	271.5	188.3
1976	189.3	186.6	189.5	185.6	188.0	250.9	181.4	179.2	205.1	190.1	233.6	314.7	210.2
1977	201.7	191.0	202.4	195.5	202.9	283.8	193.1	188.0	214.3	190.9	258.4	400.5	217.3
1978	215.5	201.0	216.4	208.3	224.4	296.4	212.5	196.9	240.1	215.3	286.7	463.7	235.4
1979	242.8	223.2	244.0	234.1	246.9	360.9	235.3	217.6	282.2	247.2	348.3	568.2	284.5
1980 ¹	279.6	252.3	281.3	265.4	268.2	494.1	263.4	246.1	316.1	258.9	424.5	710.2	341.6
1979: Jan.	225.7	214.3	226.5	218.6	236.1	302.0	223.9	207.4	260.2	233.0	311.5	504.3	255.6
Feb.	228.5	218.2	229.1	221.6	239.0	304.8	224.3	209.6	270.4	243.7	320.7	513.9	264.7
Mar.	231.5	218.9	232.3	224.5	241.3	312.9	229.3	211.1	276.6	247.4	331.6	525.2	275.5
Apr.	235.8	220.7	236.7	229.0	244.5	323.9	231.8	212.8	279.9	251.5	333.3	529.2	276.5
May	238.2	219.3	239.3	230.9	245.2	336.8	234.5	213.7	282.3	251.9	339.6	556.8	276.6
June	240.3	223.0	241.3	232.1	245.6	349.5	234.9	216.1	283.0	248.2	348.7	563.1	286.6
July	244.6	231.0	245.4	236.0	247.4	364.8	235.4	219.6	287.1	254.1	349.3	570.7	285.2
Aug.	247.5	223.1	249.0	238.0	249.2	384.6	237.6	219.6	281.7	243.7	353.6	586.2	286.1
Sept.	251.0	226.6	252.5	240.7	252.5	399.4	237.9	221.2	288.3	248.7	363.1	604.0	293.3
Oct.	255.0	226.0	256.8	244.3	254.7	410.6	242.6	224.9	289.5	247.5	368.9	612.9	298.1
Nov.	256.3	226.9	258.1	245.5	254.0	416.5	243.8	226.4	290.8	246.4	374.9	617.4	304.6
Dec.	258.7	229.8	260.5	247.8	253.7	424.6	247.1	229.2	296.2	249.7	384.2	634.5	311.6
1980: Jan.	265.9	224.8	268.4	255.5	257.7	444.0	250.9	232.5	296.8	243.0	398.9	636.3	330.1
Feb.	271.6	237.5	273.7	259.8	262.1	464.0	251.6	239.0	308.4	252.6	414.3	664.8	341.7
Mar.	273.7	232.4	276.2	259.5	265.5	481.0	253.8	240.8	303.5	245.9	412.7	664.1	339.8
Apr.	275.1	227.3	278.0	260.3	265.6	486.9	262.6	241.7	297.0	235.5	413.9	678.9	337.0
May	276.4	239.7	278.6	262.2	265.7	488.8	263.8	241.8	300.7	242.9	410.5	690.3	329.3
June	278.2	242.1	280.5	264.1	267.1	493.0	265.5	243.2	299.6	242.5	407.9	695.6	324.4
July	281.0	251.0	282.9	265.4	269.8	505.2	266.6	247.2	316.6	263.5	417.1	710.5	331.9
Aug.	283.8	264.4	285.0	268.6	271.7	508.2	266.8	249.6	329.1	276.7	424.4	725.4	342.2
Sept.	284.1	267.1	285.2	268.4	271.5	510.2	266.8	251.7	331.8	276.7	436.3	740.5	348.1
Oct.	286.3	282.2	286.6	271.8	272.1	507.1	270.0	253.7	336.0	279.1	444.1	756.1	353.5
Nov.	288.0	288.7	288.0	273.1	273.9	510.8	269.8	256.3	337.6	277.3	452.0	776.1	357.9
Dec.	291.2	269.9	292.6	275.5	276.2	529.7	272.0	256.0	335.6	271.3	457.8	783.3	363.3

¹ Data have been revised through August 1980 to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.

² Intermediate materials for food manufacturing and feeds.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B-56—*Producer price indexes by stage of processing, special groups, 1974-80*

[1967 = 100]

Year or month	Finished goods						Intermediate materials, supplies, and components				Crude materials for further processing			
	Total	Food	Energy	Excluding food and energy			Total	Foods and feeds ¹	Energy	Other	Total	Food-stuffs and feed-stuffs	Energy	Other
				Total	Capital equip-ment	Con-sumer goods exclud-ing food and energy								
1974.....	147.5	166.9	215.2	133.3	141.0	129.1	162.9	200.2	188.7	156.7	196.1	189.4	223.0	198.3
1975.....	163.4	181.0	252.4	148.5	162.5	141.0	180.0	195.3	220.8	174.7	196.9	191.8	266.9	165.0
1976.....	170.3	180.2	274.5	156.7	173.2	148.0	189.3	186.6	237.3	184.9	205.1	190.1	291.0	195.2
1977.....	180.6	189.2	305.0	166.1	184.5	156.1	201.7	191.0	268.3	196.0	214.3	190.9	344.9	197.0
1978.....	194.6	206.7	318.1	178.6	199.1	167.4	215.5	201.0	281.2	210.1	240.1	215.3	390.7	212.0
1979.....	216.1	226.3	438.1	194.4	216.7	182.4	242.8	223.2	344.6	234.1	282.2	247.2	479.4	253.6
1980 ²	244.7	238.0	666.9	216.1	239.5	203.6	279.6	252.3	475.7	262.0	316.1	258.9	631.5	270.2
1979:														
Jan.....	205.4	220.2	340.8	187.5	209.3	175.8	225.7	214.3	287.6	220.5	260.2	233.0	419.4	234.6
Feb.....	207.7	225.1	346.1	188.8	210.8	176.9	228.5	218.2	290.2	223.2	270.4	243.7	427.0	245.5
Mar.....	209.1	226.3	356.7	189.7	211.7	177.8	231.5	218.9	297.7	225.9	276.6	247.4	433.7	260.2
Apr.....	211.4	227.8	372.1	191.4	214.0	179.1	235.8	220.7	308.3	229.7	279.9	251.5	436.7	260.9
May.....	212.7	226.6	392.4	192.4	215.1	180.2	238.2	219.3	320.7	231.4	282.3	251.9	455.3	257.3
June.....	213.7	223.6	415.7	193.3	215.8	181.2	240.3	223.0	333.7	232.3	283.0	248.2	467.8	264.0
July.....	216.2	224.9	445.8	194.5	217.2	182.3	244.6	231.0	348.1	235.3	287.1	254.1	478.1	256.6
Aug.....	217.3	223.5	474.1	194.8	216.5	183.2	247.5	223.1	366.9	237.4	281.7	243.7	492.9	252.3
Sept.....	220.7	228.1	504.9	196.1	217.8	184.6	251.0	226.6	382.2	239.7	288.3	248.7	518.3	249.2
Oct.....	224.2	226.7	525.8	200.2	222.8	188.1	255.0	226.0	392.6	243.4	289.5	247.5	529.5	250.6
Nov.....	226.3	230.5	536.0	201.1	223.9	188.9	256.3	226.9	399.7	244.1	290.8	246.4	538.0	254.9
Dec.....	228.1	232.1	546.8	202.5	225.3	190.2	258.7	229.8	407.6	246.0	296.2	249.7	556.1	257.3
1980: ²														
Jan.....	232.4	231.4	568.3	207.3	229.3	195.7	265.9	224.8	425.9	252.8	296.8	243.0	576.3	268.0
Feb.....	235.7	231.6	607.3	209.4	230.5	198.3	271.6	237.5	445.9	256.7	308.4	252.6	591.5	284.2
Mar.....	238.5	233.1	649.8	210.2	232.2	198.6	273.7	232.4	462.0	257.8	303.5	245.9	594.7	278.5
Apr.....	240.5	228.9	674.8	212.8	236.2	200.4	275.1	227.3	468.8	259.1	297.0	235.5	607.4	270.3
May.....	241.6	230.0	684.1	213.4	236.6	201.0	276.4	239.7	471.1	259.5	300.7	242.9	616.1	256.8
June.....	243.0	231.0	685.0	215.0	237.7	203.0	278.2	242.1	476.0	261.1	299.6	242.5	622.8	246.4
July.....	247.1	239.7	688.5	217.4	240.5	205.2	281.0	251.0	487.1	262.6	316.6	263.5	631.6	256.4
Aug.....	249.1	244.9	690.4	218.4	241.8	205.9	283.8	264.4	489.9	264.6	329.1	276.7	646.1	265.5
Sept.....	248.9	245.8	688.6	218.0	241.3	205.6	284.1	267.1	491.5	264.7	331.8	276.7	655.8	272.3
Oct.....	252.2	245.9	683.4	222.7	248.2	209.0	286.3	282.2	488.6	266.5	336.0	279.1	667.7	276.8
Nov.....	253.2	246.9	686.4	223.5	249.1	209.7	288.0	288.7	492.0	267.8	337.6	277.3	678.6	282.6
Dec.....	254.7	274.2	695.7	224.8	251.1	210.6	291.2	269.9	509.0	271.1	335.6	271.3	689.1	284.7

¹ Intermediate materials for food manufacturing and feeds.² Data have been revised through August 1980 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-57.—*Producer price indexes for major commodity groups, 1940–80*

[1967=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
1940.....		41.4		44.0		45.2	51.4	52.4
1941.....		50.3		47.3		48.4	54.6	57.0
1942.....		64.8		50.7		52.8	56.2	63.3
1943.....		75.0		51.5		52.7	57.8	64.1
1944.....		75.5		52.3		52.2	59.5	64.8
1945.....		78.5		53.0		52.9	60.1	65.2
1946.....		90.9		58.0		61.1	64.4	70.5
1947.....	94.3	109.4	82.9	70.8	103.6	83.3	76.9	93.7
1948.....	101.5	117.5	88.7	76.9	108.1	84.2	90.5	95.9
1949.....	89.6	101.6	80.6	75.3	98.9	79.9	86.2	87.6
1950.....	93.9	106.7	83.4	78.0	102.7	86.3	87.1	88.9
1951.....	106.9	124.2	92.7	86.1	114.6	99.1	90.3	101.7
1952.....	102.7	117.2	91.6	84.1	103.4	80.1	90.1	96.5
1953.....	96.0	106.2	87.4	84.8	100.8	81.3	92.6	97.7
1954.....	95.7	104.7	88.9	85.0	98.6	77.6	91.3	98.9
1955.....	91.2	98.2	85.0	86.9	98.7	77.3	91.2	98.5
1956.....	90.6	96.9	84.9	90.8	98.7	81.9	94.0	99.1
1957.....	93.7	99.5	87.4	93.3	98.8	82.0	99.1	101.2
1958.....	98.1	103.9	91.8	93.6	97.0	82.9	95.3	102.0
1959.....	93.5	97.5	89.4	95.3	98.4	94.2	95.3	101.6
1960.....	93.7	97.2	89.5	95.3	99.5	90.8	96.1	101.8
1961.....	93.7	96.3	91.0	94.8	97.7	91.7	97.2	100.7
1962.....	94.7	98.0	91.9	94.8	98.6	92.7	96.7	99.1
1963.....	93.8	96.0	92.5	94.7	98.5	90.0	96.3	97.9
1964.....	93.2	94.6	92.3	95.2	99.2	90.3	93.7	98.3
1965.....	97.1	98.7	95.5	96.4	99.8	94.3	95.5	99.0
1966.....	103.5	105.9	101.2	98.5	100.1	103.4	97.8	99.4
1967.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968.....	102.4	102.5	102.2	102.5	103.7	103.2	98.9	99.8
1969.....	108.0	109.1	107.3	106.0	106.0	108.9	100.9	99.9
1970.....	111.7	111.0	112.1	110.0	107.1	110.3	106.2	102.2
1971.....	113.9	112.9	114.5	114.1	109.0	114.1	115.2	104.1
1972.....	122.4	125.0	120.8	117.9	113.6	131.3	118.6	104.2
1973.....	159.1	176.3	148.1	125.9	123.8	143.1	134.3	110.0
1974.....	177.4	187.7	170.9	153.8	139.1	145.1	208.3	146.8
1975.....	184.2	186.7	182.6	171.5	137.9	148.5	245.1	181.3
1976.....	183.1	191.0	178.0	182.4	148.2	167.8	265.6	187.2
1977.....	188.8	192.5	186.1	195.1	154.0	179.3	302.2	192.8
1978.....	206.6	212.5	202.6	209.4	159.8	200.0	322.5	198.8
1979.....	229.8	241.4	222.5	236.5	168.7	252.4	408.1	222.3
1980 ^a	244.6	249.3	241.0	274.5	183.4	348.6	573.4	260.2
1979:								
Jan.....	221.1	230.4	215.2	220.0	164.1	223.4	338.1	205.0
Feb.....	227.2	240.9	218.9	222.5	164.2	232.2	342.5	207.3
Mar.....	229.0	242.8	220.5	225.4	165.2	253.3	350.9	209.9
Apr.....	231.2	246.0	222.3	229.0	166.4	258.9	361.5	215.1
May.....	230.8	245.4	222.0	231.6	167.2	269.6	377.6	218.0
June.....	229.0	242.8	220.6	234.0	168.4	268.0	393.7	219.2
July.....	232.2	246.8	223.3	237.5	169.3	261.9	411.8	225.0
Aug.....	227.5	238.5	220.5	240.6	170.5	257.9	432.8	228.5
Sept.....	231.8	241.0	225.8	244.2	171.3	251.1	454.8	230.8
Oct.....	230.6	239.6	224.8	249.0	172.0	253.9	468.5	234.2
Nov.....	232.3	240.2	227.1	250.6	172.8	248.9	476.9	236.0
Dec.....	234.6	242.5	229.3	253.1	173.1	249.2	487.9	238.2
1980: ^a								
Jan.....	231.9	236.4	228.5	260.6	175.2	255.7	508.0	246.0
Feb.....	237.0	242.3	233.1	265.9	176.5	250.9	532.7	248.7
Mar.....	234.9	239.3	231.6	268.6	179.3	246.8	553.5	252.8
Apr.....	229.3	228.9	228.6	271.3	181.2	243.5	566.6	259.8
May.....	233.8	233.5	233.1	271.9	182.0	240.7	572.1	262.5
June.....	234.3	233.4	233.9	273.5	183.0	240.9	576.5	262.8
July.....	246.6	254.3	241.5	276.2	184.7	245.1	585.5	263.3
Aug.....	255.1	263.8	249.4	278.2	185.6	251.3	590.6	264.4
Sept.....	256.3	266.6	249.8	278.2	186.2	247.8	593.0	263.2
Oct.....	258.8	263.4	255.4	281.2	187.8	(*)	592.5	264.6
Nov.....	260.1	264.9	256.5	282.7	189.3	255.5	597.6	266.9
Dec.....	256.5	265.3	250.8	286.1	190.2	256.6	611.7	267.9

See next page for continuation of table.

TABLE B-57.—*Producer price indexes for major commodity groups, 1940-80—Continued*

[1967=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: Motor vehicles and equipment ⁴	Miscellaneous products
1940.....	57.1	27.4		37.8	41.4	53.8	49.1	40.4	
1941.....	61.5	32.7		38.5	42.1	57.2	50.2	43.2	
1942.....	71.6	35.6		39.1	42.8	61.8	52.3	47.2	
1943.....	73.6	37.7		39.0	42.4	61.4	52.4	47.2	
1944.....	72.7	40.6		39.0	42.1	63.1	53.5	47.5	
1945.....	70.5	41.2		39.6	42.2	63.2	55.7	48.3	
1946.....	70.8	47.2		44.3	46.4	67.1	59.3	56.0	
1947.....	70.5	73.4	72.5	54.9	53.7	77.0	66.3	64.1	73.5
1948.....	72.8	84.0	75.7	62.5	58.2	81.6	71.6	70.8	76.5
1949.....	70.5	77.7	72.4	63.0	61.0	82.9	73.5	75.7	78.0
1950.....	85.9	89.3	74.3	66.3	63.1	84.7	75.4	75.3	79.2
1951.....	105.4	97.2	88.0	73.8	70.5	91.8	80.1	79.4	83.9
1952.....	95.5	94.4	85.7	73.9	70.6	90.1	80.1	84.0	83.4
1953.....	89.1	94.3	85.5	76.3	72.2	91.9	83.3	83.6	85.6
1954.....	90.4	92.6	85.5	76.9	73.4	92.9	85.1	83.8	86.4
1955.....	102.4	97.1	87.8	82.1	75.7	93.3	87.5	86.3	86.5
1956.....	103.8	98.5	93.6	89.2	81.8	95.8	91.3	91.2	87.6
1957.....	103.4	93.5	95.4	91.0	87.6	98.3	94.8	95.1	90.2
1958.....	103.3	92.4	96.4	90.4	89.4	99.1	95.8	98.1	92.0
1959.....	102.9	98.8	97.3	92.3	91.3	99.3	97.0	100.3	92.2
1960.....	103.1	95.3	98.1	92.4	92.0	99.0	97.2	98.8	93.0
1961.....	99.2	91.0	95.2	91.9	91.9	98.4	97.6	98.6	93.3
1962.....	96.3	91.6	96.3	91.2	92.0	97.7	97.6	98.6	93.7
1963.....	96.8	93.5	95.6	91.3	92.2	97.0	97.1	97.8	94.5
1964.....	95.5	95.4	95.4	93.8	92.8	97.4	97.3	98.3	95.2
1965.....	95.9	95.9	96.2	96.4	93.9	96.9	97.5	98.5	95.9
1966.....	97.8	100.2	98.8	98.8	96.8	98.0	98.4	98.6	97.7
1967.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968.....	103.4	113.3	101.1	102.6	103.2	102.8	103.7	102.8	102.2
1969.....	105.3	125.3	104.0	108.5	106.5	104.9	107.7	104.8	105.2
1970.....	108.3	113.6	108.2	116.6	111.4	107.5	112.9	108.7	109.9
1971.....	109.1	127.3	110.1	118.7	115.5	110.0	122.4	114.9	112.9
1972.....	109.3	144.3	113.4	123.5	117.9	111.4	126.1	118.0	114.6
1973.....	112.4	177.2	122.1	132.8	121.7	115.2	130.2	119.2	119.7
1974.....	136.2	183.6	151.7	171.9	139.4	127.9	153.2	129.2	133.1
1975.....	150.2	176.9	170.4	185.6	161.4	139.7	174.0	144.6	147.7
1976.....	159.2	205.6	179.4	195.9	171.0	145.6	186.3	153.8	153.7
1977.....	167.6	236.3	186.4	209.0	181.7	151.5	200.5	163.7	164.3
1978.....	174.8	276.0	195.6	227.1	196.1	160.4	222.8	176.0	184.3
1979.....	194.3	300.4	219.0	259.3	213.9	171.3	248.6	190.5	208.7
1980 ^a	217.3	288.8	249.3	286.2	239.6	187.3	282.8	208.7	258.7
1979:									
Jan.....	180.8	290.2	207.0	241.9	205.1	166.6	238.3	185.0	197.7
Feb.....	183.2	293.9	208.8	247.3	206.5	167.9	240.5	185.9	199.8
Mar.....	185.9	300.5	212.3	251.7	207.9	168.3	240.8	186.1	200.6
Apr.....	188.8	304.9	215.0	256.0	209.8	168.7	243.4	189.4	201.4
May.....	190.8	302.8	216.2	256.2	211.4	169.6	245.6	189.8	203.3
June.....	193.1	299.8	216.6	258.2	212.4	170.2	246.9	190.1	205.2
July.....	195.5	300.1	218.3	260.8	214.8	170.7	249.5	190.8	207.0
Aug.....	198.8	304.7	222.2	261.8	216.0	171.5	249.9	187.8	208.9
Sept.....	200.7	309.7	223.0	263.7	217.7	172.7	254.6	188.6	213.1
Oct.....	203.0	308.8	227.5	269.6	220.0	175.1	256.2	197.1	218.9
Nov.....	204.9	298.9	229.5	271.1	221.3	176.4	257.4	197.4	221.4
Dec.....	205.9	290.1	231.7	273.6	223.4	177.9	259.6	198.2	227.4
1980: ^a									
Jan.....	207.8	290.0	237.4	284.6	227.6	183.4	268.4	200.7	242.9
Feb.....	210.7	294.7	239.2	288.9	230.2	185.6	274.0	200.1	262.9
Mar.....	212.7	294.9	242.6	286.8	232.5	185.7	276.5	200.7	256.1
Apr.....	214.1	275.6	247.8	284.4	236.4	184.4	283.7	205.4	252.8
May.....	215.0	272.1	249.2	281.8	237.6	185.4	284.0	204.5	251.7
June.....	217.3	279.8	251.1	281.9	239.2	186.5	283.4	205.2	258.0
July.....	218.8	289.2	251.7	282.5	241.5	188.0	284.8	208.6	261.7
Aug.....	220.5	295.1	252.4	285.1	242.6	188.9	286.0	211.7	260.1
Sept.....	221.2	291.8	252.7	286.2	244.3	187.8	286.0	205.3	264.4
Oct.....	222.7	288.7	254.4	290.4	246.4	189.1	287.8	217.8	265.0
Nov.....	223.0	293.4	255.5	290.7	247.7	190.4	288.4	218.0	263.8
Dec.....	223.5	299.4	257.4	290.7	249.5	192.3	290.7	225.9	265.4

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 1980 to reflect the availability of late reports and corrections by respondents. All data are subject to revision 4 months after original publication.³ Not available⁴ Index for total transportation equipment is not shown but is available beginning December 1968.

Source: Department of Labor, Bureau of Labor Statistics.

TABLE B-58.—Changes in producer price indexes for finished goods, 1948-80

(Percent change)

Year or month	Total finished goods		Finished consumer goods		Finished goods excluding consumer goods						Finished energy goods		Finished goods excluding food and energy	
	Dec. to Dec. 1	Year to year	Dec. to Dec. 1	Year to year	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				
1948.....	3.0	8.0	-2.4	9.2			4.0	6.3	10.4	9.0				
1949.....	-4.6	-2.9	-7.4	-8.1			-4.5	-2.1	-6	5.0				
1950.....	10.4	1.8	13.3	1.9			8.2	1.6	10.3	2.4				
1951.....	2.2	9.5	5.3	12.4			-1.9	7.2	3.4	9.7				
1952.....	-2.2	-6	-5.9	-9			-1.6	-1.3	8	1.7				
1953.....	.5	-1.0	-2.2	-5.2			1.6	.9	2.3	1.7				
1954.....	-1.1	.2	-1.9	-8			.3	.3	1.1	1.2				
1955.....	1.2	.2	-2.9	-2.5			1.7	.8	5.6	3.0				
1956.....	4.2	2.8	3.6	-2			2.5	2.4	8.3	7.4				
1957.....	3.2	3.6	5.3	3.5			1.7	2.5	4.3	6.2				
1958.....	.5	2.3	.4	5.8			.2	.1	1.3	2.6				
1959.....	-4	-2	-3.7	-4.7			.8	1.3	1.0	1.9				
1960.....	1.8	.8	5.2	2.2			.4	.4	.1	.2				
1961.....	-5	0	-1.8	-4			-3	-1	.2	.1				
1962.....	.1	.3	.5	.9			-1	-2	.3	.4				
1963.....	-2	-3	-1.3	-1.2			.1	0	.5	.2				
1964.....	.5	.4	.4	.5			.1	-1	.9	1.0				
1965.....	3.3	1.7	9.1	3.8			.9	.7	1.5	1.2				
1966.....	2.2	3.2	1.4	6.5			1.7	1.6	3.9	2.5				
1967.....	1.6	1.2	-4	-1.6			2.1	1.9	3.1	3.3				
1968.....	3.1	2.8	4.8	3.6	2.4	2.6	2.0	2.1	3.0	3.5				
1969.....	4.8	3.7	8.2	6.2	3.4	2.7	2.9	2.4	4.6	3.3				
1970.....	2.2	3.5	-2.5	3.2	4.3	3.5	3.9	3.0	4.9	4.8				
1971.....	3.2	3.1	5.9	1.6	2.1	3.7	2.0	3.4	2.4	4.1				
1972.....	3.8	3.1	8.0	5.6	2.1	2.0	2.0	1.9	2.0	2.5				
1973.....	11.8	9.1	22.5	20.3	6.6	4.1	7.4	4.5	5.3	3.3				
1974.....	18.3	15.3	13.0	14.0	21.2	16.0	20.5	16.9	22.6	14.2				
1975.....	6.6	10.8	5.5	8.4	7.2	12.1	6.7	10.5	8.2	15.2	16.4	17.3	6.1	11.4
1976.....	3.3	4.2	-2.5	-4	5.5	6.0	4.9	5.7	6.4	6.6	5.4	8.8	5.4	5.5
1977.....	6.6	6.0	6.6	5.0	6.6	6.5	6.1	6.4	7.2	6.5	9.1	11.1	6.3	6.0
1978.....	9.2	7.8	11.9	9.2	8.3	7.2	8.4	6.7	8.0	7.9	8.0	4.3	8.2	7.5
1979.....	12.6	11.0	7.6	9.5	14.4	11.6	18.0	13.3	8.8	8.8	62.7	37.7	9.3	8.8
1980 ^a	11.7	13.2	6.5	5.2	13.3	15.9	14.3	19.4	11.5	10.5	27.2	52.2	11.0	11.2
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
1979:														
Jan.....	1.4	1.2	2.0	1.5	1.2	1.1	1.3	1.1	1.1	1.0	1.4	2.0	1.2	1.0
Feb.....	1.1	1.1	2.2	1.4	.7	1.0	.8	1.0	.7	.9	1.6	1.8	.7	.9
Mar.....	.7	1.0	.5	1.3	.7	.9	.9	1.1	.4	.6	3.1	3.5	.5	.6
Apr.....	1.1	.8	.7	.4	1.2	1.2	1.3	1.2	1.1	1.1	4.3	4.3	.9	.8
May.....	.6	.5	-.5	-1.0	1.0	1.0	1.4	1.4	.5	.5	5.5	4.9	.5	.6
June.....	.5	.6	-1.3	-1.0	1.1	1.1	1.5	1.4	.3	.7	5.9	5.2	.5	.6
July.....	1.2	1.2	.6	.7	1.4	1.3	1.8	1.7	.6	.8	7.2	6.0	.6	.8
Aug.....	.5	1.1	.6	1.5	.9	1.0	1.6	1.7	-3	-1	6.3	6.2	.2	.3
Sept.....	1.6	1.5	2.1	1.4	1.4	1.5	1.9	1.9	.6	.7	6.5	6.5	.7	.8
Oct.....	1.6	1.1	.6	-.1	2.4	1.5	2.4	1.8	2.3	.9	4.1	4.5	2.1	1.1
Nov.....	.9	1.2	1.7	1.9	.7	1.0	.8	1.1	.5	.7	1.9	2.7	.4	.7
Dec.....	.8	.8	.7	.3	.8	1.1	1.0	1.2	.5	.9	2.0	2.3	.7	.9
1980: ^a														
Jan.....	1.9	1.6	-.3	-.9	2.6	2.4	3.1	2.9	1.8	1.6	3.9	4.5	2.4	2.0
Feb.....	1.4	1.4	.1	-.4	1.8	2.0	2.6	2.8	.5	.7	6.9	7.1	1.0	1.2
Mar.....	1.2	1.4	.6	1.0	1.4	1.5	1.7	1.8	.7	.9	7.0	7.5	.4	.5
Apr.....	.8	.6	-1.8	-2.8	1.6	1.6	1.6	1.5	1.7	1.8	3.8	3.8	1.2	1.2
May.....	.5	.3	.5	.0	.5	.4	.6	.5	.2	.2	1.4	.8	.3	.3
June.....	.6	.7	.4	.7	.6	.7	.8	.6	.5	.7	.1	-.6	.7	.9
July.....	1.7	1.7	3.8	3.9	1.1	1.1	1.0	.8	1.2	1.4	.5	-.7	1.1	1.3
Aug.....	.8	1.4	2.2	4.3	.4	.5	.4	.4	.5	.7	.3	.1	.5	.6
Sept.....	-1	-2	.4	-.2	-.2	-.2	-.2	-.2	-.2	-.1	-.3	-.3	-.2	-.1
Oct.....	1.3	.8	.0	.5	1.7	.9	1.1	.6	2.9	1.4	-.8	-.4	2.2	1.1
Nov.....	.4	.6	.4	.5	.4	.7	.4	.7	.4	.6	.4	1.3	.4	.6
Dec.....	.6	.6	.1	-.4	.7	.9	.7	.7	.8	1.0	1.4	1.6	.6	.8

¹ Changes from December to December are based on unadjusted indexes.² Data have been revised through August 1980 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.

MONEY STOCK, CREDIT, AND FINANCE

TABLE B-59.—Money stock measures and liquid assets, 1959–80

[Averages of daily figures; billions of dollars, seasonally adjusted]

Period	M1-A	M1-B	M2	M3	L
	Currency plus demand deposits ¹	M1-A plus other checkable deposits at banks and thrift institutions	M1-B plus overnight RPs and Eurodollars, MMMF shares, and savings and small time deposits at commercial banks and thrift institutions ²	M2 plus large time deposits and term RPs at commercial banks and thrift institutions	M3 plus other liquid assets
December:					
1959.....	140.7	140.7	296.7	297.9	387.5
1960.....	141.6	141.6	311.2	313.3	402.5
1961.....	146.1	146.1	333.9	337.9	429.1
1962.....	148.8	148.8	361.1	368.2	464.5
1963.....	154.2	154.2	391.4	402.3	501.8
1964.....	161.2	161.3	422.8	438.0	538.3
1965.....	168.7	168.8	457.2	478.5	582.3
1966.....	172.8	172.9	478.5	502.2	613.9
1967.....	184.2	184.2	523.6	555.7	667.2
1968.....	198.4	198.5	566.2	605.3	730.9
1969.....	204.6	204.7	587.6	610.4	761.2
1970.....	215.3	215.4	625.2	671.7	812.5
1971.....	229.2	229.4	709.6	769.7	898.7
1972.....	250.6	250.6	801.6	877.8	1,017.7
1973.....	264.1	264.4	858.1	976.1	1,137.2
1974.....	275.3	275.7	906.2	1,058.6	1,242.8
1975.....	287.9	289.0	1,022.4	1,161.0	1,369.6
1976.....	305.0	307.7	1,166.7	1,299.7	1,523.5
1977.....	328.4	332.5	1,294.1	1,460.3	1,715.5
1978.....	351.6	359.9	1,401.5	1,623.6	1,927.7
1979.....	369.7	386.4	1,525.5	1,775.5	2,141.1
1980 ^a	385.4	411.0	1,669.7	1,954.0	.....
1979:					
Jan.....	350.1	360.0	1,407.5	1,631.9	1,939.4
Feb.....	350.0	360.7	1,413.8	1,642.3	1,954.8
Mar.....	351.9	363.9	1,426.6	1,654.8	1,978.3
Apr.....	356.1	369.6	1,441.2	1,669.1	2,000.7
May.....	355.5	369.2	1,449.5	1,679.2	2,021.1
June.....	359.4	373.9	1,465.9	1,695.2	2,048.7
July.....	362.0	377.4	1,478.3	1,709.2	2,063.8
Aug.....	364.0	379.9	1,491.8	1,725.8	2,081.3
Sept.....	365.9	382.2	1,502.9	1,745.5	2,110.0
Oct.....	366.6	382.9	1,510.1	1,757.8	2,120.4
Nov.....	368.0	384.2	1,516.4	1,765.4	2,126.4
Dec.....	369.7	386.4	1,525.5	1,775.5	2,141.1
1980:					
Jan.....	370.8	388.1	1,534.5	1,786.9	2,155.2
Feb.....	373.7	391.3	1,546.7	1,804.5	2,175.9
Mar.....	373.1	391.2	1,553.1	1,811.1	2,190.1
Apr.....	367.6	386.6	1,549.9	1,811.1	2,200.7
May.....	367.8	386.2	1,562.1	1,824.2	2,216.6
June.....	371.3	390.9	1,585.7	1,844.5	2,229.1
July.....	373.7	394.5	1,609.7	1,865.2	2,243.4
Aug.....	379.7	401.6	1,629.2	1,886.3	2,268.2
Sept.....	383.7	406.9	1,640.9	1,900.7	2,295.1
Oct.....	386.7	410.8	1,652.9	1,917.1	2,310.1
Nov.....	388.9	414.0	1,667.2	1,940.8	.....
Dec. ^a	385.4	411.0	1,669.7	1,954.0	.....

¹ Demand deposits at all commercial banks other than those due to domestic banks, the U.S. Government, and foreign banks and official institutions less cash items in the process of collection and Federal Reserve float.

² Total M2 excludes demand deposits held by thrift institutions at commercial banks, not shown separately in components.

Note.—See Table B-60 for components.

Source: Board of Governors of the Federal Reserve System.

TABLE B-60.—Components of money stock measures and liquid assets, 1959–80

(Averages of daily figures; billions of dollars, seasonally adjusted, except as noted)

Period	Currency	Demand deposits ¹	Other checkable deposits	Over-night repurchase agreements (RPs) (net)	Over-night Euro-dollars	Money market mutual fund (MMMF) shares	Savings deposits	Small denomination time deposits ²	Large denomination time deposits ²	Term repurchase agreements (RPs)	Term Euro-dollars (net)	Savings bonds	Short-term Treasury securities	Bankers' acceptances	Commercial paper
			NSA	NSA	NSA	NSA				NSA	NSA				
December: 1959.....	28.9	111.8	0.0	0.0	0.0	0.0	145.2	11.5	1.2	0.0	0.7	46.1	38.7	0.5	3.6
1960.....	29.0	112.7	.0	.0	.0	.0	157.8	12.6	2.0	.0	.8	45.7	36.8	.8	5.1
1961.....	29.6	116.6	.0	.0	.0	.0	173.9	14.8	4.0	.0	1.4	46.5	37.1	1.0	5.2
1962.....	30.6	118.2	.0	.0	.0	.0	193.1	20.2	7.1	.0	1.6	46.9	39.9	1.0	6.8
1963.....	32.5	121.7	.0	.0	.0	.0	212.6	25.7	10.9	.0	1.9	48.1	40.7	1.1	7.7
1964.....	34.2	127.0	.1	.0	.0	.0	233.3	29.3	15.3	.0	2.4	49.0	38.5	1.2	9.1
1965.....	36.3	132.4	.1	.0	.0	.0	255.0	34.5	21.3	.0	1.7	49.7	40.7	1.5	10.2
1966.....	38.3	134.5	.1	.5	.0	.0	251.1	55.1	23.2	.5	2.1	50.2	43.2	1.6	14.4
1967.....	40.4	143.7	.1	1.1	.0	.0	261.4	78.1	31.1	1.0	2.1	51.2	38.7	1.7	17.8
1968.....	43.5	154.9	.1	1.6	.0	.0	266.3	101.1	37.6	1.5	2.9	51.8	46.1	2.2	22.5
1969.....	46.1	158.6	.1	2.5	.0	.0	261.0	120.7	20.4	2.4	2.3	51.7	59.5	3.2	34.0
1970.....	49.1	166.2	.1	1.4	.0	.0	256.7	153.0	45.1	1.4	1.8	52.0	49.2	3.3	34.5
1971.....	52.6	176.7	.1	2.5	.0	.0	287.5	191.8	57.6	2.5	2.3	54.3	36.2	3.5	32.7
1972.....	56.9	193.6	.1	3.1	.0	.0	317.0	232.6	73.0	3.3	2.8	57.5	40.9	3.5	35.2
1973.....	61.6	202.5	.3	6.8	.0	.0	322.2	266.4	110.9	7.1	4.4	60.4	49.8	4.7	41.9
1974.....	67.8	207.4	.4	7.2	.0	2.3	333.9	288.9	144.0	8.4	6.7	63.2	53.4	10.7	50.1
1975.....	73.8	214.1	1.1	7.5	.0	3.6	383.9	340.4	129.6	9.0	7.9	67.3	76.8	8.5	48.1
1976.....	80.7	224.4	2.7	13.6	.0	3.4	447.7	396.6	118.0	15.0	10.3	71.8	80.7	9.0	51.8
1977.....	88.7	239.7	4.1	17.6	1.0	3.8	486.5	454.9	145.2	21.0	13.7	76.6	89.5	12.3	63.1
1978.....	97.6	253.9	8.3	21.9	2.0	10.3	476.1	533.8	194.7	27.3	22.8	80.7	98.7	22.6	79.4
1979.....	106.3	263.4	16.7	21.7	3.6	43.6	416.7	656.5	219.4	30.5	31.9	80.0	127.5	28.9	97.3
1980 ^a	116.5	268.9	25.6	25.5	4.6	75.8	395.5	760.5	250.6	33.7					
1979:															
Jan.....	98.2	251.9	9.9	21.2	2.3	12.1	468.1	546.3	197.4	27.1	24.5	80.6	98.8	22.4	81.2
Feb.....	98.9	251.1	10.8	21.9	2.6	14.5	460.7	555.9	200.9	27.5	27.1	80.6	100.4	21.4	83.1
Mar.....	99.6	252.3	12.0	23.1	2.8	16.8	457.0	565.6	200.0	28.4	28.4	80.5	108.2	21.3	85.0
Apr.....	100.2	255.9	13.6	23.9	2.8	19.2	452.3	576.1	198.6	29.3	29.1	80.6	114.2	21.1	86.6
May.....	100.9	254.7	13.6	25.9	2.8	21.8	448.6	583.9	198.2	31.5	29.6	80.6	122.5	21.0	88.2
June.....	101.8	257.6	14.6	26.3	2.9	24.6	449.8	591.0	196.8	32.4	29.9	80.4	131.4	21.5	90.4
July.....	102.6	259.4	15.4	25.5	3.0	28.0	450.9	596.2	198.9	32.0	31.4	80.0	128.8	22.6	91.8
Aug.....	103.7	260.3	15.9	25.3	3.3	31.2	450.4	604.4	201.8	32.2	33.9	80.0	123.0	25.0	93.6
Sept.....	104.7	261.2	16.3	26.2	3.6	33.7	445.4	614.6	208.9	33.7	33.4	80.6	128.1	26.6	95.7
Oct.....	105.5	261.1	16.3	25.3	3.5	36.5	436.0	628.4	214.8	33.0	33.2	82.2	123.7	27.1	96.4
Nov.....	105.9	262.1	16.2	22.5	3.2	40.4	421.3	647.8	218.5	30.5	34.0	80.3	122.1	28.6	96.0
Dec.....	106.3	263.4	16.7	21.7	3.6	43.6	416.7	656.5	219.4	30.5	31.9	80.0	127.5	28.9	97.3
1980:															
Jan.....	107.3	263.5	17.3	22.6	4.1	49.1	411.8	661.8	222.5	29.9	34.1	79.2	127.6	28.4	99.0
Feb.....	108.1	265.6	17.6	23.0	4.1	56.7	403.1	671.4	228.6	29.2	37.5	78.1	128.8	27.6	99.3
Mar.....	108.9	264.2	18.0	21.0	3.6	60.9	391.9	687.6	230.7	27.2	37.4	76.8	136.3	28.8	99.8
Apr.....	109.0	258.6	19.0	17.6	2.7	60.4	377.3	708.3	234.2	27.1	37.9	75.2	146.3	29.5	100.6
May.....	110.1	257.7	18.4	18.5	2.8	66.8	372.7	718.0	235.0	27.1	37.8	74.0	151.8	29.4	99.5
June.....	111.0	260.3	19.6	19.6	2.9	74.2	381.4	719.6	230.7	28.1	36.0	73.3	148.6	30.2	96.5
July.....	112.0	261.6	20.8	23.0	3.6	80.6	393.8	717.2	226.2	29.3	35.4	72.8	144.2	30.1	95.8
Aug.....	113.4	266.3	21.9	25.2	3.7	80.7	403.9	717.1	225.3	31.7	36.0	72.6	147.2	29.6	96.6
Sept.....	113.9	269.8	23.2	26.4	3.7	78.2	407.9	720.9	229.0	30.9	34.1	73.2	157.3	31.3	98.5
Oct.....	115.1	271.6	24.1	25.5	4.4	77.4	410.1	727.9	231.8	32.3	33.0	74.6	155.0	32.2	98.3
Nov.....	115.9	273.1	25.1	25.6	4.7	77.0	405.2	743.9	238.6	32.6					
Dec ^a	116.5	268.9	25.6	25.5	4.6	75.8	395.5	760.5	250.6	33.7					

¹ Demand deposits at all commercial banks other than those due to domestic banks, the U.S. Government, and foreign banks and official institutions less cash items in the process of collection and Federal Reserve float.² Small denomination and large denomination deposits are those issued in amounts of less than \$100,000 and more than \$100,000, respectively.

Note.—NSA indicates data are not seasonally adjusted.

See also Table B-59.

Source: Board of Governors of the Federal Reserve System.

TABLE B-61.—Commercial bank loans and investments, 1939-80

[Billions of dollars]

Year and month	Total loans and investments	Loans		Investments		Loans plus loans sold to bank affiliates
		Total	Commercial and industrial	U.S. Treasury securities	Other securities	
End of month ¹						
1939: Dec.....	40.7	17.2		16.3	7.1	
1940: Dec.....	43.9	18.8		17.8	7.4	
1941: Dec.....	50.7	21.7		21.8	7.2	
1942: Dec.....	67.4	19.2		41.4	6.8 ²	
1943: Dec.....	85.1	19.1		59.8	6.1	
1944: Dec.....	105.5	21.6		77.6	6.3	
1945: Dec.....	124.0	26.1		90.6	7.3	
1946: Dec.....	114.0	31.1		74.8	8.1	
1947: Dec.....	116.3	38.1		69.2	9.0	
1948: Dec.....	114.2	42.4		62.6	9.2	
Seasonally adjusted						
1948: Dec.....	113.0	41.5		62.3	9.2	
1949: Dec.....	118.7	42.0		66.4	10.3	
1950: Dec.....	124.7	51.1		61.1	12.4	
1951: Dec.....	130.2	56.5		60.4	13.4	
1952: Dec.....	139.1	62.8		62.2	14.2	
1953: Dec.....	143.1	66.2		62.2	14.7	
1954: Dec.....	153.1	69.1		67.6	16.4	
1955: Dec.....	157.6	80.6		60.3	16.8	
1956: Dec.....	161.6	88.1		57.2	16.3	
1957: Dec.....	166.4	91.5		56.9	17.9	
1958: Dec.....	181.2	95.6		65.1	20.5	
1959: Dec.....	188.7	110.5	39.4	57.7	20.5	110.5
1960: Dec.....	197.4	116.7	42.1	59.9	20.8	116.7
1961: Dec.....	212.8	123.6	43.9	65.3	23.9	123.6
1962: Dec.....	231.2	137.3	47.6	64.7	29.2	137.3
1963: Dec.....	250.2	153.7	52.1	61.5	35.0	153.7
1964: Dec.....	272.3	172.9	58.4	60.7	38.7	172.9
1965: Dec.....	300.1	198.2	69.5	57.1	44.8	198.2
1966: Dec.....	316.1	213.9	78.6	53.5	48.7	213.9
1967: Dec.....	352.0	231.3	86.2	59.4	61.3	231.3
1968: Dec.....	390.2	258.2	95.9	60.7	71.3	258.2
1969: Dec.....	401.7	279.4	105.7	51.2	71.1	283.3
1970: Dec.....	435.5	292.0	110.0	57.8	85.7	294.7
1971: Dec.....	485.7	320.9	116.2	60.6	104.2	323.7
1972: Dec.....	558.0	378.9	130.4	62.6	116.5	381.5
Average for month ²						
1972: Dec.....	566.1	386.2	136.3	64.1	115.8	388.8
1973: Dec.....	647.8	460.3	165.6	58.7	128.8	464.6
1974: Dec.....	713.6	519.9	197.3	53.7	140.0	524.7
1975: Dec.....	744.6	516.9	189.8	82.1	145.7	521.3
1976: Dec.....	804.3	554.8	191.2	100.6	149.0	558.5
1977: Dec.....	891.1	632.1	211.2	99.5	159.6	636.9
1978: Dec.....	1,014.3	747.8	246.5	93.4	173.1	751.6
1979: Dec.....	1,132.5	847.2	290.5	93.8	191.5	850.0
1980:						
Jan.....	1,144.8	858.5	295.6	93.2	193.1	861.1
Feb.....	1,162.7	872.7	301.1	94.8	195.2	875.3
Mar.....	1,165.2	874.7	302.8	94.5	196.0	877.3
Apr.....	1,161.0	871.6	301.2	93.2	196.2	874.2
May.....	1,154.9	860.6	297.7	94.6	199.7	863.2
June.....	1,152.0	853.5	295.4	97.0	201.5	856.3
July.....	1,160.0	855.0	296.2	100.9	204.2	857.8
Aug.....	1,177.2	865.8	301.4	104.4	207.0	868.7
Sept.....	1,191.0	876.4	306.0	106.6	208.0	879.3
Oct.....	1,204.5	886.2	312.0	107.9	210.3	889.0
Nov ²	1,221.2	899.4	318.4	109.3	212.5	902.1

¹ Data are for December 31 call dates.² Data are prorated averages of Wednesday figures for domestically chartered banks and averages of current and previous month-end data for foreign-related institutions. Lease financing receivables are included in total loans and investments and in total loans.

Source: Board of Governors of the Federal Reserve System.

TABLE B-62.—Total funds raised in credit markets by nonfinancial sectors, 1972-80

(Billions of dollars)

Item	1972	1973	1974	1975	1976	1977	1978	1979
Total funds raised by nonfinancial sectors.....	176.8	203.1	191.6	210.8	271.9	338.5	400.3	394.9
U.S. Government.....	15.1	8.3	11.8	85.4	69.0	56.8	53.7	37.4
Foreign.....	4.0	6.1	15.4	13.3	20.8	13.9	32.3	21.2
Private domestic nonfinancial sectors.....	157.7	188.8	164.4	112.1	182.0	267.9	314.4	336.4
Corporate equities.....	10.9	7.9	4.1	9.9	10.5	2.7	2.6	3.5
Debt instruments.....	146.8	180.9	160.3	102.1	171.5	265.1	311.8	333.0
Debt capital instruments.....	102.1	105.1	98.0	98.4	123.5	175.6	196.6	199.9
State and local government obligations.....	14.7	14.7	16.5	16.1	15.7	23.7	28.3	18.9
Corporate bonds.....	12.2	9.2	19.7	27.2	22.8	21.0	20.1	21.2
Mortgages.....	75.2	81.2	61.9	55.0	85.0	131.0	148.2	159.9
Home.....	42.5	46.4	34.8	39.5	63.7	96.4	104.5	109.1
Multi-family residential.....	12.7	10.4	6.9	-0	1.8	7.4	10.2	8.9
Commercial.....	16.4	18.9	15.1	11.0	13.4	18.4	23.3	25.7
Farm.....	3.6	5.5	5.0	4.6	6.1	8.8	10.2	16.2
Other debt instruments.....	44.7	75.8	62.3	3.8	48.0	89.5	115.2	133.0
Consumer credit.....	19.8	26.0	9.9	9.7	25.6	40.6	50.6	44.2
Bank loans n.e.c.....	17.1	37.1	32.0	-12.3	4.0	27.0	37.3	50.6
Open-market paper.....	8	2.5	6.6	-2.6	4.0	2.9	5.2	10.9
Other.....	6.9	10.3	13.7	9.0	14.4	19.0	22.2	27.3
By borrowing sector: Total.....	157.7	188.8	164.4	112.1	182.0	267.9	314.4	336.4
State and local governments.....	14.5	13.2	15.5	13.7	15.2	20.4	23.6	15.5
Households.....	65.1	80.1	51.3	49.7	90.5	139.9	162.6	165.0
Nonfinancial business.....	78.1	95.5	97.6	48.6	76.3	107.6	128.2	155.9
Farm.....	5.8	9.6	8.0	8.8	10.9	14.7	18.1	25.8
Nonfarm noncorporate.....	14.1	12.9	7.4	2.0	4.7	12.9	15.4	15.8
Corporate.....	58.2	73.0	82.1	37.9	60.7	79.9	94.7	114.3
Debt instruments.....	47.2	65.2	78.0	28.0	50.2	77.2	92.2	110.8
Equities.....	10.9	7.9	4.1	9.9	10.5	2.7	2.6	3.5
Total funds supplied to nonfinancial sectors.....	176.8	203.1	191.6	210.8	271.9	338.5	400.3	394.9
Financed directly or indirectly by:								
Private domestic nonfinancial sectors.....	122.7	140.3	118.9	140.4	168.5	189.7	217.0	238.2
Deposits.....	106.7	101.2	73.8	98.1	131.9	149.5	151.8	144.7
Demand deposits and currency.....	21.5	14.5	8.2	12.6	16.1	26.1	22.2	18.9
Time and savings deposits.....	83.6	75.7	65.4	84.0	113.5	121.0	115.2	84.7
Money market funds and repurchase agreements.....	1.6	11.0	.2	1.6	2.3	2.4	14.4	41.0
Credit market instruments.....	21.6	45.7	47.3	45.8	39.8	46.4	71.4	105.4
Corporate equities.....	-5.6	-6.7	-2.2	-3.5	-3.2	-6.1	-6.2	-11.9
Foreign funds.....	14.6	6.4	22.1	2.1	13.4	43.2	46.5	20.3
At banks.....	3.8	3.0	10.3	-8.7	-4.6	1.2	6.3	26.3
Credit and equity instruments.....	10.8	3.4	11.7	10.8	17.9	42.0	40.1	-6.1
U.S. Government-related loans, net.....	2.6	11.2	19.5	24.9	20.5	19.5	30.5	35.4
U.S. Government cash balances.....	-4	-1.5	-4.6	2.8	3.0	.9	3.7	.5
Private insurance and pension reserves.....	26.3	30.7	33.4	39.7	47.9	58.7	70.6	66.4
Other sources.....	11.0	16.1	2.4	.9	18.6	26.5	32.0	34.3

See next page for continuation of table.

TABLE B-62.—Total funds raised in credit markets by nonfinancial sectors, 1972-80—Continued

(Billions of dollars)

Item	1980 unadjusted quarterly flows			1980 seasonally adjusted annual rates		
	I	II	III	I	II	III
Total funds raised by nonfinancial sectors	81.6	62.5	102.4	414.2	236.0	379.4
U.S. Government	19.1	5.4	27.1	61.4	64.2	96.4
Foreign	4.2	7.7	8.3	24.3	31.9	24.9
Private domestic nonfinancial sectors	58.4	49.4	67.0	328.5	139.8	258.1
Corporate equities	2.0	1.2	1.2	8.0	4.7	4.9
Debt instruments	56.4	48.2	65.3	320.5	135.2	253.2
Debt capital instruments	38.5	41.9	50.4	198.0	138.2	177.7
State and local government obligations	1.6	6.6	8.4	20.8	14.8	23.4
Corporate bonds	5.0	11.4	8.4	23.2	43.3	33.6
Mortgages	31.9	23.9	33.6	154.0	80.1	120.7
Home mortgages	19.7	14.4	22.2	99.8	44.8	78.0
Multi-family residential	2.1	1.6	2.6	8.0	6.5	10.5
Commercial	5.4	3.6	5.8	28.0	13.7	20.3
Farm	4.7	4.4	3.0	18.2	15.1	11.8
Other debt instruments	17.9	6.3	15.4	122.5	-3.1	75.5
Consumer credit	-3.5	-8.1	3.9	25.9	-44.2	6.1
Bank loans n.e.c.	6.8	2.2	13.0	37.5	-1.8	58.7
Open-market paper	8.4	6.0	-2.8	37.2	22.2	-10.2
Other	6.3	6.2	1.3	22.0	20.7	20.9
By borrowing sector: Total	58.4	49.4	67.0	328.5	139.8	258.1
State and local governments	1.4	5.8	7.8	20.2	11.7	20.8
Households	23.1	13.3	27.1	142.1	40.8	97.8
Nonfinancial business	33.9	30.3	32.1	166.2	87.3	139.4
Farm	5.4	7.9	4.8	23.9	23.2	18.6
Nonfarm noncorporate	2.2	.8	5.1	18.4	-1	18.8
Corporate	26.3	21.6	22.3	123.8	64.3	102.0
Debt instruments	24.3	20.4	21.0	115.8	59.6	97.1
Equities	2.0	1.2	1.2	8.0	4.7	4.9
Total funds supplied to nonfinancial sectors	81.6	62.5	102.4	414.2	236.0	379.4
Financed directly or indirectly by:						
Private domestic nonfinancial sectors	44.0	29.4	58.7	252.8	117.3	257.1
Deposits	19.3	40.1	43.4	151.5	165.9	174.6
Demand deposits and currency	-23.7	5.9	5.7	2.7	-2.9	40.8
Time and savings deposits	26.9	16.6	34.3	84.8	98.4	119.9
Money market funds and repurchase agreements	16.0	17.6	3.5	64.1	70.4	14.0
Credit market instruments	27.6	-11.4	17.8	118.7	-56.3	91.7
Corporate equities	-2.9	.8	-2.5	-17.4	7.8	-9.2
Foreign funds	7.3	-11.7	-.7	27.8	-22.0	-33.7
At banks	7.2	-16.2	-6.9	36.7	-69.6	-51.6
Credit and equity instruments .....	.0	4.5	6.3	-9.0	47.6	17.9
U.S. Government-related loans, net	6.2	15.5	4.9	46.3	42.9	7.2
U.S. Government cash balances	-8.0	5.7	8.5	-6.8	-12.1	15.1
Private insurance and pension reserves	18.8	20.0	18.4	73.0	83.4	72.6
Other sources	13.4	3.4	12.6	21.1	26.5	61.0

Source: Board of Governors of the Federal Reserve System.

TABLE B-63.—Federal Reserve Bank credit and member bank reserves, 1929–80

(Averages of daily figures; millions of dollars)

Year and month	Reserve Bank credit outstanding				Member bank reserves *		
	Total	U.S. Government and Federal agency securities	Member bank borrowings		Total	Required	Excess
			Total	Seasonal			
1929: Dec.....	1,643	446	801		396	2,395	2,347 48
1933: Dec.....	2,669	2,432	95		142	2,588	* 1,822 * 766
1939: Dec.....	2,612	2,510	3		99	11,473	6,462 5,011
1940: Dec.....	2,305	2,188	3		114	14,049	7,403 6,646
1941: Dec.....	2,404	2,219	5		180	12,812	9,422 3,390
1942: Dec.....	6,035	5,549	4		482	13,152	10,776 2,376
1943: Dec.....	11,914	11,166	90		658	12,749	11,701 1,048
1944: Dec.....	19,612	18,693	265		654	14,168	12,884 1,284
1945: Dec.....	24,744	23,708	334		702	16,027	15,536 1,491
1946: Dec.....	24,746	23,767	157		822	16,517	14,617 900
1947: Dec.....	22,858	21,905	224		729	17,261	16,275 986
1948: Dec.....	23,978	23,002	134		842	19,990	19,193 797
1949: Dec.....	19,012	18,287	118		607	16,291	15,488 803
1950: Dec.....	21,606	20,345	142		1,119	17,391	16,364 1,027
1951: Dec.....	25,446	23,409	657		1,380	20,310	19,484 826
1952: Dec.....	27,299	24,400	1,593		1,306	21,180	20,457 723
1953: Dec.....	27,107	25,639	441		1,027	19,920	19,227 693
1954: Dec.....	26,317	24,917	246		1,154	19,279	18,576 703
1955: Dec.....	26,853	24,602	839		1,412	19,240	18,646 594
1956: Dec.....	27,156	24,765	688		1,703	19,535	18,883 652
1957: Dec.....	26,186	23,982	710		1,494	19,420	18,843 577
1958: Dec.....	28,412	26,312	557		1,543	18,899	18,383 516
1959: Dec.....	29,435	27,036	906		1,493	18,932	18,450 482
1960: Dec.....	29,060	27,248	87		1,725	19,283	18,514 769
1961: Dec.....	31,217	29,098	149		1,970	20,118	19,550 568
1962: Dec.....	33,218	30,546	304		2,368	20,040	19,468 572
1963: Dec.....	36,610	33,729	327		2,554	20,746	20,210 536
1964: Dec.....	39,873	37,126	243		2,504	21,609	21,198 411
1965: Dec.....	43,853	40,885	454		2,514	22,719	22,267 452
1966: Dec.....	46,864	43,760	557		2,547	23,830	23,438 392
1967: Dec.....	51,268	48,891	238		2,139	25,260	24,915 345
1968: Dec.....	56,610	52,529	765		3,316	27,221	26,766 455
1969: Dec.....	64,100	57,500	1,086		5,514	28,031	27,774 257
1970: Dec.....	66,708	61,688	321		4,699	29,265	28,993 272
1971: Dec.....	74,255	69,158	107		4,990	31,329	31,164 165
1972: Dec.....	76,851	71,094	1,049		4,708	31,353	31,134 219
1973: Dec.....	85,642	79,701	1,298	41	4,643	35,068	34,806 262
1974: Dec.....	93,967	86,679	703	32	6,585	36,941	36,602 339
1975: Dec.....	99,651	92,108	127	13	7,416	34,989	34,727 262
1976: Dec.....	107,632	100,328	62	12	7,242	35,136	34,964 172
1977: Dec.....	116,382	107,948	558	54	7,876	36,471	36,297 174
1978: Dec.....	129,330	117,344	874	134	11,112	41,572	41,447 125
1979: Dec.....	139,896	126,276	1,473	82	12,147	43,972	43,578 394
1980: Dec. P.....	143,250	127,895	1,617	116	13,738	* 40,097	40,067 * 30
1980: Jan.....	138,843	126,238	1,241	75	11,364	45,170	44,928 242
Feb.....	135,485	123,327	1,655	96	10,503	43,156	42,966 190
Mar.....	136,260	124,243	2,824	150	9,193	43,097	42,911 186
Apr.....	139,212	127,546	2,455	155	9,211	44,877	44,683 194
May.....	139,590	129,663	1,018	63	8,905	43,968	43,785 183
June.....	141,182	131,356	380	12	9,446	43,479	43,268 211
July.....	141,744	130,997	395	7	10,352	42,859	42,575 284
Aug.....	139,235	128,070	659	10	10,506	40,373	40,071 302
Sept.....	139,993	128,684	1,311	26	9,998	41,164	40,908 256
Oct.....	141,695	130,661	1,335	67	9,699	41,815	41,498 317
Nov.....	142,984	129,743	2,156	99	11,085	* 41,678	40,723 * 955
Dec. P.....	143,250	127,895	1,617	116	13,738	* 40,097	40,067 * 30

* Mainly float.

* Beginning December 1959, part of currency and cash held by member banks allowed as reserves; beginning November 1960 all such currency and cash allowed.

Beginning November 1972, includes reserve deficiencies on which Federal Reserve Banks were allowed to waive penalties for a transition period in connection with bank adaptation to Regulation J as amended effective November 9, 1972. Transition period ended after second quarter 1974.

Effective November 1975, includes reserve deficiencies on which penalties are waived over a 24-month period when a nonmember bank merges into an existing member bank, or when a nonmember bank joins the Federal Reserve System.

* Data are for licensed banks only.

* Includes all reserve balances of depository institutions plus vault cash at institutions with required reserve balances plus vault cash equal to required reserves at other institutions.

* Reserve balances with Federal Reserve Banks plus vault cash used to satisfy reserve requirements less required reserves. (This measure of excess reserves is comparable to the old excess reserve concept published historically.)

Source: Board of Governors of the Federal Reserve System.

TABLE B-64.—Aggregate reserves and member bank deposits, 1959-80

[Averages of daily figures; billions of dollars, seasonally adjusted]

Year and month	Reserves of depository institutions ¹			Monetary base ³	Member bank deposits subject to reserve requirements				Adjusted for changes in reserve requirements ⁴			
	Total ²	Non-borrowed	Re-quired		Total	Time and savings	Demand		Reserves of depository institutions			Monetary base
							Private	U.S. Government	Total	Non-borrowed	Re-quired	
1959: Dec.....	18.61	17.67	18.10	48.3	157.8	54.4	98.6	4.8	16.12	15.18	15.61	45.8
1960: Dec.....	18.91	18.84	18.17	48.7	162.2	58.9	98.8	4.6	16.35	16.27	15.60	46.1
1961: Dec.....	19.76	19.63	19.18	50.2	175.4	67.8	102.7	4.9	16.91	16.77	16.32	47.3
1962: Dec.....	19.72	19.46	19.14	51.2	189.1	80.1	103.3	5.7	17.36	17.10	16.79	48.8
1963: Dec.....	20.39	20.06	19.90	53.8	203.7	92.4	105.9	5.4	17.85	17.52	17.36	51.3
1964: Dec.....	21.27	21.01	20.87	56.5	219.1	104.1	109.1	5.9	18.50	18.24	18.10	53.8
1965: Dec.....	22.34	21.90	21.92	59.8	238.9	121.1	113.0	4.8	19.30	18.86	18.88	56.7
1966: Dec.....	23.39	22.86	23.05	62.9	246.8	129.0	114.1	3.7	19.41	18.88	19.07	58.9
1967: Dec.....	24.91	24.69	24.54	66.5	276.3	149.3	121.5	5.4	21.20	20.97	20.82	62.8
1968: Dec.....	27.18	26.43	26.75	72.0	300.4	164.9	130.6	4.9	22.53	21.78	22.10	67.3
1969: Dec.....	28.07	26.95	27.78	75.6	288.0	150.7	132.1	5.2	22.43	21.31	22.14	69.9
1970: Dec.....	29.22	28.89	28.97	79.8	321.7	179.4	136.1	6.2	23.98	23.65	23.73	74.6
1971: Dec.....	31.28	31.15	31.09	85.5	361.1	211.4	143.8	5.8	25.63	25.50	25.44	79.9
1972: Dec.....	31.40	30.35	31.11	90.2	402.8	242.4	154.4	6.1	28.53	27.48	28.25	87.3
1973: Dec.....	34.98	33.68	34.68	98.6	443.4	280.4	158.2	4.8	30.25	28.95	29.94	93.9
1974: Dec.....	36.66	35.94	36.41	106.8	487.2	323.3	160.6	3.3	32.15	31.42	31.89	102.1
1975: Dec.....	34.67	34.54	34.40	111.0	504.9	337.5	164.6	2.8	32.17	32.04	31.90	107.6
1976: Dec.....	34.90	34.85	34.63	118.4	528.3	353.6	171.7	3.0	32.67	32.62	32.39	115.2
1977: Dec.....	36.00	35.43	35.81	127.6	567.6	385.6	178.5	3.5	34.10	33.53	33.91	124.8
1978: Dec.....	41.16	40.29	40.93	142.2	616.1	428.7	185.1	2.2	36.03	35.16	35.80	136.1
1979: Dec.....	43.57	42.10	43.13	153.8	644.4	451.1	191.5	1.8	37.51	36.03	37.06	146.8
1980: Dec. ^P	40.13	38.44	39.58	159.8	701.8	503.9	195.9	1.9	40.11	38.42	39.56	159.7
1979:												
Jan.....	41.36	40.36	41.15	143.2	619.0	431.2	185.8	2.0	36.19	35.19	35.98	137.1
Feb.....	40.87	39.90	40.66	143.4	617.5	432.9	182.7	1.9	35.71	34.74	35.51	137.3
Mar.....	40.75	39.76	40.59	143.9	615.4	432.3	181.2	1.8	35.60	34.61	35.44	137.9
Apr.....	40.70	39.78	40.52	144.6	618.7	431.8	185.0	1.9	35.57	34.65	35.40	138.5
May.....	40.67	39.80	40.53	145.1	616.0	429.8	184.2	1.9	35.59	33.83	35.45	139.2
June.....	40.53	39.11	40.31	145.9	614.7	427.6	185.0	2.1	35.56	34.14	35.34	140.1
July.....	40.78	39.61	40.57	147.1	619.3	430.6	186.9	1.8	35.80	34.63	35.59	141.2
Aug.....	41.11	40.03	40.89	148.6	625.4	436.3	187.0	2.1	36.05	34.96	35.83	142.6
Sept.....	41.43	40.09	41.24	150.0	631.5	441.7	188.1	1.7	36.29	34.95	36.10	144.0
Oct.....	42.20	40.18	41.93	151.5	638.2	446.6	189.8	1.7	36.82	34.80	36.55	145.2
Nov.....	43.06	41.15	42.81	152.8	641.9	450.1	190.0	1.9	36.94	35.03	36.69	145.8
Dec.....	43.57	42.10	43.13	153.8	644.4	451.1	191.5	1.8	37.51	36.03	37.06	146.8
1980:												
Jan.....	43.44	42.20	43.19	154.7	643.7	451.9	189.5	2.3	37.48	36.23	37.22	147.8
Feb.....	43.35	41.70	43.14	155.6	647.2	454.4	190.9	1.9	37.40	35.75	37.19	148.7
Mar.....	43.67	40.85	43.48	156.6	649.1	457.9	189.4	1.8	37.48	34.65	37.29	149.5
Apr.....	44.85	42.39	44.65	157.9	655.4	464.2	188.7	2.4	37.52	35.06	37.32	149.7
May.....	44.45	43.43	44.27	158.5	656.8	467.7	187.3	1.8	37.49	36.47	37.31	150.7
June.....	43.96	43.58	43.76	158.9	658.0	467.9	188.4	1.7	37.46	37.08	37.26	151.5
July.....	42.78	42.39	42.50	158.8	658.5	467.0	189.1	2.5	37.57	37.18	37.29	152.6
Aug.....	40.75	40.09	40.45	158.2	667.8	474.2	191.5	2.1	38.05	37.39	37.75	154.6
Sept.....	41.52	40.21	41.26	159.5	678.2	482.0	194.5	1.8	38.73	37.41	38.47	155.8
Oct.....	41.73	40.42	41.52	160.9	684.7	486.7	195.6	2.4	38.89	37.58	38.69	157.1
Nov.....	41.23	39.17	40.73	160.6	694.5	494.2	198.2	2.2	40.06	38.00	39.56	159.1
Dec. ^P	40.13	38.44	39.58	159.8	701.8	503.9	195.9	1.9	40.11	38.42	39.56	159.7

¹ Reserves of depository institutions series reflect actual reserve requirement percentages with no adjustment to eliminate the effect of changes in Regulations D and M. Prior to November 13, 1980, the date of implementation of the Monetary Control Act, only the reserves of commercial banks that were members of the Federal Reserve System were included in the series. Since that date the series include the reserves of all depository institutions. In conjunction with the implementation of the act, required reserves of member banks were reduced about \$4.3 billion and required reserves of other depository institutions were increased about \$1.4 billion. Effective October 11, 1979, an 8 percentage point marginal reserve requirement was imposed on "managed liabilities". This action raised required reserves about \$320 million. Effective March 12, 1980, the 8 percentage point marginal reserve requirement was raised to 10 percentage points. In addition the base upon which the marginal reserve requirement was reduced. This action increased required reserves about \$1.7 billion in the week ending April 2, 1980. Effective May 29, 1980, the marginal reserve requirement was reduced from 10 to 5 percentage points and the base upon which the marginal reserve requirement was calculated was raised. This action reduced required reserves about \$980 million in the week ending June 18, 1980. Effective July 24, 1980, the 5 percent marginal reserve requirement on managed liabilities and the 2 percent supplementary reserve requirement against large time deposits were removed. These actions reduced required reserves about \$3.2 billion.

² Reserve balances with Federal Reserve Banks plus vault cash at institutions with required reserve balances plus vault cash equal to required reserves at other institutions.

³ Includes reserve balances at Federal Reserve Banks in the current week plus vault cash held two weeks earlier used to satisfy reserve requirements at all depository institutions plus currency outside the U.S. Treasury, Federal Reserve Banks, the vaults of depository institutions, and surplus vault cash at depository institutions.

⁴ Reserve aggregates series have been adjusted to remove discontinuities associated with the implementation of the Monetary Control Act, marginal reserve requirements, the inclusions of Edge Act Corporation reserves, and other changes in Regulations D, K, and M.

⁵ Reserve measures beginning November reflect increases in required reserves associated with the reduction of weekend avoidance activities of a few large banks. The reduction in these activities leads to essentially a one-time increase in the average level of required reserves that need to be held for a given level of deposits entering the money supply. In November, this increase in required reserves is estimated at \$550 to \$600 million.

Source: Board of Governors of the Federal Reserve System.

TABLE B-65.—Bond yields and interest rates, 1929-80

[Percent per annum]

Year or month	U.S. Treasury securities				Corporate bonds (Moody's)		High-grade municipal bonds (Standard & Poor's)	New-home mortgage yields (FHLBB) ³	Prime commercial paper, 4-6 months	Prime rate charged by banks ⁴	Discount rate, Federal Reserve Bank of New York ⁴	Federal funds rate ⁵
	Bills (new issues) ¹		Constant maturities ²		Aaa	Baa						
	3-month	6-month	3 years	10 years								
1929.....					4.73	5.90	4.27		5.85	5½-6	5.16	
1933.....	0.515				4.49	7.76	4.71		1.73	1½-4	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	* 1.00	
1943.....	.373				2.73	3.91	2.06		.69	1.50	* 1.00	
1944.....	.375				2.72	3.61	1.86		.73	1.50	* 1.00	
1945.....	.375				2.62	3.29	1.67		.75	1.50	* 1.00	
1946.....	.375				2.53	3.05	1.64		.81	1.50	* 1.00	
1947.....	.594				2.61	3.24	2.01		1.03	1½-1¾	1.00	
1948.....	1.040				2.82	3.47	2.40		1.44	1¾-2	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	5.82	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	7.80	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	7.72	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	4.69	5.25	4.50	4.43
1973.....	7.041	7.178	6.95	6.84	7.44	8.24	5.18	7.95	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	9.87	10.81	7.83	10.50
1975.....	5.838	6.122	7.49	7.99	8.83	10.61	6.89	9.01	6.33	7.86	6.25	5.82
1976.....	4.989	5.266	6.77	7.61	8.43	9.75	6.49	8.99	5.35	6.84	5.50	5.05
1977.....	5.265	5.510	6.69	7.42	8.02	8.97	5.56	9.01	5.60	6.83	5.46	5.54
1978.....	7.221	7.572	8.29	8.41	8.73	9.49	5.90	9.54	7.99	9.06	7.46	7.93
1979.....	10.041	10.017	9.71	9.44	9.63	10.69	6.39	10.77	10.91	12.67	10.28	11.19
1980.....	11.506	11.374	11.55	11.46	11.94	13.67	8.51	12.65	12.29	15.27	11.77	13.35

See next page for continuation of table.

TABLE B-65.—Bond yields and interest rates, 1929-80—Continued

(Percent per annum)

Year or month	U.S. Treasury securities				Corporate bonds (Moody's)		High-grade municipal bonds (Standard & Poor's)	New-home mortgage yields (FHLBB) ³	Prime commercial paper, 4-6 months	Prime rate charged by banks ⁴	Discount rate, Federal Reserve Bank of New York ⁴	Federal funds rate ⁵
	Bills (new issues) ¹		Constant maturities ²		Aaa	Baa						
	3-month	6-month	3 years	10 years								
1978:												
Jan.....	6.448	6.685	7.61	7.96	8.41	9.17	5.60	9.15	6.79	7½ - 8	6 - 6½	6.70
Feb.....	6.457	6.740	7.67	8.03	8.47	9.20	5.51	9.18	6.80	8 - 8	6½ - 6½	6.78
Mar.....	6.319	6.644	7.70	8.04	8.47	9.22	5.49	9.26	6.80	8 - 8	6½ - 6½	6.79
Apr.....	6.306	6.700	7.85	8.15	8.56	9.32	5.71	9.30	6.86	8 - 8	6½ - 6½	6.89
May.....	6.430	7.019	8.07	8.35	8.69	9.49	5.97	9.37	7.11	8 - 8½	6½ - 7	7.36
June.....	6.707	7.200	8.30	8.46	8.76	9.60	6.13	9.46	7.63	8½ - 9	7 - 7	7.60
July.....	7.074	7.471	8.54	8.64	8.88	9.60	6.18	9.57	7.91	9 - 9	7 - 7½	7.81
Aug.....	7.036	7.363	8.33	8.41	8.69	9.48	5.98	9.70	7.90	9 - 9½	7½ - 7½	8.04
Sept.....	7.836	7.948	8.41	8.42	8.69	9.42	5.93	9.73	8.44	9¼ - 9¾	7½ - 8	8.45
Oct.....	8.132	8.493	8.62	8.64	8.89	9.59	5.95	9.83	9.03	9½ - 10¼	8 - 8½	8.96
Nov.....	8.787	9.204	9.04	8.81	9.03	9.83	6.03	9.87	10.23	10½ - 11½	9½ - 9½	9.76
Dec.....	9.122	9.397	9.33	9.01	9.16	9.94	6.33	10.02	10.43	11½ - 11½	9½ - 9½	10.03
1979:												
Jan.....	9.351	9.501	9.50	9.10	9.25	10.13	6.25	10.18	10.32	11½ - 11½	9½ - 9½	10.07
Feb.....	9.265	9.349	9.29	9.10	9.26	10.08	6.19	10.20	10.01	11½ - 11½	9½ - 9½	10.06
Mar.....	9.457	9.458	9.38	9.12	9.37	10.26	6.16	10.30	9.96	11½ - 11½	9½ - 9½	10.09
Apr.....	9.493	9.498	9.43	9.18	9.38	10.33	6.14	10.36	9.87	11½ - 11½	9½ - 9½	10.01
May.....	9.579	9.531	9.42	9.25	9.50	10.47	6.10	10.47	9.98	11½ - 11½	9½ - 9½	10.24
June.....	9.045	9.062	8.95	8.91	9.29	10.38	5.99	10.66	9.71	11½ - 11½	9½ - 9½	10.29
July.....	9.262	9.190	8.94	8.95	9.20	10.29	6.05	10.78	9.82	11½ - 11½	9½ - 10	10.47
Aug.....	9.450	9.450	9.14	9.03	9.23	10.35	6.10	11.01	10.39	11½ - 12½	10 - 10½	10.94
Sept.....	10.182	10.125	9.69	9.33	9.44	10.54	6.40	11.02	11.60	12½ - 13½	10½ - 11	11.43
Oct.....	11.472	11.339	10.95	10.30	10.13	11.40	6.98	11.21	13.23	13½ - 15	11 - 12	13.77
Nov.....	11.868	11.856	11.18	10.65	10.76	11.99	7.19	11.37	13.26	15½ - 15½	12 - 12	13.18
Dec.....	12.071	11.847	10.71	10.39	10.74	12.06	7.09	11.64	12.80	15½ - 15½	12 - 12	13.78
1980:												
Jan.....	12.036	11.851	10.88	10.80	11.09	12.42	7.21	11.87	12.66	15½ - 15½	12 - 12	13.82
Feb.....	12.814	12.721	12.84	12.41	12.38	13.57	8.04	11.93	13.60	15½ - 16½	12 - 13	14.13
Mar.....	15.526	15.100	14.05	12.75	12.96	14.45	9.09	12.62	16.50	16¼ - 19½	13 - 13	17.19
Apr.....	14.003	13.618	12.02	11.47	12.04	14.19	8.40	13.03	14.93	19½ - 19½	13 - 13	17.61
May.....	9.150	9.149	9.44	10.18	10.99	13.17	7.37	13.68	9.29	18½ - 14	13 - 12	10.98
June.....	6.995	7.218	8.91	9.78	10.58	12.71	7.60	12.66	8.03	14 - 12	12 - 11	9.47
July.....	8.126	8.101	9.27	10.25	11.07	12.65	8.08	12.48	8.29	12 - 11	11 - 10	9.03
Aug.....	9.259	9.443	10.63	11.10	11.64	13.15	8.62	12.25	9.61	11 - 11½	10 - 10	9.61
Sept.....	10.321	10.546	11.57	11.51	12.02	13.70	8.95	12.35	11.04	11½ - 13	10 - 11	10.87
Oct.....	11.580	11.566	12.01	11.75	12.31	14.23	9.11	12.61	12.32	13½ - 14½	11 - 11	12.81
Nov.....	13.888	13.612	13.31	12.68	12.97	14.64	9.55	13.04	14.73	14½ - 17½	11 - 12	15.85
Dec.....	15.661	14.770	13.65	12.84	13.21	15.14	10.09	13.27	16.49	17½ - 21½	12 - 13	18.90

¹ Rate on new issues within period; bank-discount basis.² Yields on the more actively traded issues adjusted to constant maturities by the Treasury Department.³ Effective rate (in the primary market) on conventional mortgages, reflecting fees and charges as well as contract rate and assuming on the average, repayment at end of 10 years. Rates beginning January 1973 not strictly comparable with prior rates.⁴ Average effective rate for the year, except for prime rate for 1929-33 and 1947-48, which are ranges of the rate in effect during the period, opening and closing rate for the month.⁵ 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.⁶ 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.⁷ Beginning November 1979, data are for 6-months paper.⁸ On May 1, range of 18½-19 was in effect.

Sources: Department of the Treasury, Board of Governors of the Federal Reserve System, Federal Home Loan Bank Board (FHLBB), Moody's Investors Service, and Standard & Poor's Corporation.

TABLE B-66—Consumer credit outstanding and net change, 1950-80

(Millions of dollars)

Year and month	Amount outstanding (end of month)						Net change from preceding period			
	Total	Installment credit ¹					Total	Installment credit ¹		Noninstallment credit ⁴
		Total	Auto-mobile	Revolving ²	Mobile home ³	Other		Total	Auto-mobile	
1950: Dec.	25,641	15,503	6,015			9,488	10,138	4,789	3,271	1,537
1951: Dec.	27,268	16,220	5,958			10,262	11,048	1,627	717	-57
1952: Dec.	32,551	20,470	7,635			12,835	12,081	5,283	4,250	1,677
1953: Dec.	36,736	24,254	9,685			14,569	12,482	4,185	3,784	2,050
1954: Dec.	38,192	24,891	9,747			15,144	13,301	1,456	637	62
1955: Dec.	45,348	30,269	13,471			16,798	15,079	7,156	5,378	3,724
1956: Dec.	49,268	33,171	14,484			18,687	16,097	3,920	2,902	1,013
1957: Dec.	52,191	35,443	15,472			19,971	16,748	2,923	2,272	988
1958: Dec.	52,702	35,339	14,258			21,081	17,363	511	-104	615
1959: Dec.	60,741	41,123	16,632			24,491	19,618	8,039	5,784	2,255
1960: Dec.	65,104	45,051	18,083			26,968	20,053	4,363	3,928	1,451
1961: Dec.	67,635	46,027	17,599			28,428	21,608	2,531	976	-484
1962: Dec.	73,917	50,994	19,924			31,070	22,923	6,282	4,967	2,325
1963: Dec.	82,805	57,829	22,842			34,987	24,976	8,888	6,835	2,918
1964: Dec.	92,591	65,572	25,817			39,755	27,019	9,786	7,743	2,975
1965: Dec.	103,207	73,881	29,355			44,526	29,326	10,616	8,309	3,538
1966: Dec.	109,749	79,339	30,992			48,347	30,410	6,542	5,458	1,637
1967: Dec.	115,430	83,148	31,131			52,017	32,282	5,681	3,809	1,39
1968: Dec.	126,949	91,681	34,348	2,105		55,228	35,268	11,519	8,533	3,217
1969: Dec.	137,742	101,161	36,946	3,720		60,495	36,581	10,793	9,480	2,598
1970: Dec.	143,113	105,528	36,325	5,128	2,461	61,614	37,585	5,371	4,367	-621
1971: Dec.	157,795	118,255	40,519	8,528	7,226	61,982	39,540	14,682	12,727	4,194
1972: Dec.	177,639	133,173	47,862	9,700	9,526	66,085	44,466	19,844	14,918	7,343
1973: Dec.	203,077	155,108	53,772	11,709	13,580	76,047	47,969	25,438	21,935	5,910
1974: Dec.	213,427	164,594	54,266	13,681	14,642	82,005	48,833	30,350	9,486	494
1975: Dec.	223,140	171,996	57,242	15,019	14,434	85,301	51,144	9,713	7,402	2,976
1976: Dec.	248,916	193,525	67,707	17,189	14,573	94,056	55,391	25,776	21,529	10,465
1977: Dec.	289,133	230,564	82,911	39,274	14,945	93,434	58,569	40,217	37,039	15,204
1978: Dec.	337,713	273,645	101,647	48,309	15,235	108,454	64,068	48,580	43,081	18,736
1979: Dec.	380,528	312,024	116,362	56,937	16,838	121,887	68,504	42,815	38,379	14,715
Seasonally adjusted ⁵										
1979: Jan.	337,603	273,863	102,419	47,800	15,401	108,243	63,740	5,602	4,214	2,031
Feb.	338,995	274,770	103,511	47,068	15,601	108,594	64,221	5,897	4,220	1,681
Mar.	342,678	277,321	105,456	46,770	15,855	109,240	65,357	5,383	3,350	1,579
Apr.	346,864	281,191	107,188	47,245	15,925	110,833	65,673	5,288	3,809	1,388
May	352,096	285,717	109,279	47,855	16,107	112,476	66,379	3,748	3,166	1,140
June	356,241	289,928	111,121	48,545	16,236	114,026	66,313	2,322	2,611	988
July	359,020	293,151	112,187	48,918	16,318	115,728	65,869	3,118	2,816	816
Aug.	364,224	298,006	113,685	50,304	16,487	117,530	66,218	3,524	2,731	871
Sept.	368,545	301,978	115,190	51,230	16,584	118,974	66,567	5,234	4,008	1,713
Oct.	371,644	304,370	115,668	51,928	16,718	120,056	67,274	4,705	3,033	954
Nov.	375,268	307,336	116,102	52,370	16,793	121,171	67,932	3,410	2,694	794
Dec.	380,528	312,024	116,362	56,937	16,838	121,887	68,504	2,608	2,033	1,014
1980: Jan.	378,277	311,012	116,719	56,256	16,832	121,205	67,265	1,959	2,727	1,538
Feb.	377,046	310,149	117,202	55,269	16,875	120,803	66,897	2,517	2,403	982
Mar.	376,334	309,127	117,642	54,269	16,944	120,272	67,207	1,277	654	513
Apr.	374,491	307,831	117,502	53,690	16,974	119,665	66,660	-3,827	-1,671	-643
May	371,732	305,788	117,058	53,225	16,912	118,593	65,944	-4,102	-2,677	-1,041
June	370,018	304,399	116,456	53,042	16,988	117,913	65,619	-1,961	-2,045	-1,026
July	371,917	303,853	116,125	53,036	17,004	117,688	68,064	-544	-1,199	-717
Aug.	374,172	305,763	116,868	53,771	17,068	118,056	68,409	835	489	355
Sept.	375,526	306,926	116,781	54,406	17,113	118,626	68,600	1,009	1,055	84
Oct.	376,151	307,222	116,657	54,598	17,276	118,691	68,929	524	702	201
Nov.		308,051	116,517	55,304	17,293	118,937		839	245	

¹ Installment credit covers most short- and intermediate-term credit extended to individuals through regular business channels, usually to finance the purchase of consumer goods and services or to refinance debts incurred for such purposes, and scheduled to be repaid (or with the option of repayment) in two or more installments.

² Consists of credit cards at retailers, gasoline companies, and commercial banks, and check credit at commercial banks. Prior to 1968, included in "other," except gasoline companies, included in noninstallment credit prior to 1971. Beginning 1977, includes open-end credit at retailers, previously included in "other." Also beginning 1977, some retail credit was reclassified from commercial into consumer credit. Credit secured by real estate is generally excluded.

³ Not reported separately prior to July 1970.

⁴ Because of inconsistencies in the data and infrequent benchmarking, series on noninstallment credit is no longer published by the Federal Reserve Board on a regular basis. Data are shown here as a general indication of trends.

⁵ For installment credit, computed as the difference between extensions and liquidations (both seasonally adjusted); see also Table B-67. For noninstallment credit, computed as the change from one month to another in the seasonally adjusted amount outstanding.

Source: Board of Governors of the Federal Reserve System.

TABLE B-67—Consumer installment credit extended and liquidated, 1950-80

(Millions of dollars; monthly data seasonally adjusted)

Year or month	Total		Automobile		Revolving ¹		Mobile home ²		Other	
	Ex- tended	Liqui- dated	Ex- tended	Liqui- dated	Ex- tended	Liqui- dated	Ex- tended	Liqui- dated	Ex- tended	Liqui- dated
1950	22,130	18,861	8,445	6,906					13,685	11,955
1951	24,583	23,867	8,951	9,008					15,632	14,859
1952	30,616	26,355	11,610	9,932					19,006	16,423
1953	32,579	28,794	12,740	10,689					19,839	18,105
1954	32,265	31,625	11,741	11,879					20,524	19,946
1955	40,263	34,882	16,732	13,008					23,531	21,874
1956	40,886	37,899	15,572	14,559					25,314	23,340
1957	43,101	40,759	16,554	15,567					26,547	25,192
1958	41,138	41,290	14,287	15,501					26,026	25,789
1959	49,134	43,395	18,008	15,638					31,126	27,757
1960	50,827	47,022	18,112	16,661					32,715	30,361
1961	50,598	49,735	16,477	16,960					34,121	32,775
1962	57,562	52,601	20,164	17,840					37,398	34,761
1963	64,660	57,822	22,617	19,699					42,043	38,123
1964	72,445	64,616	24,792	21,815					47,653	42,801
1965	79,918	71,616	27,913	24,386					52,005	47,230
1966	83,821	78,365	27,844	26,206					55,977	52,159
1967	89,058	85,194	27,623	27,482					61,435	57,712
1968	101,426	92,075	32,228	29,013	3,481	2,726			65,717	60,386
1969	109,422	99,945	33,686	31,090	6,182	4,567			69,554	64,288
1970	115,132	110,352	30,857	31,414	8,689	7,278	612	478	74,980	71,188
1971	138,046	127,789	36,706	32,512	21,862	20,818	2,521	1,754	76,957	72,705
1972	151,749	136,787	43,702	38,081	24,659	23,485	5,121	2,975	78,267	72,246
1973	173,035	152,817	49,606	43,696	28,702	26,699	7,061	4,184	87,666	78,238
1974	172,765	163,276	46,514	46,019	33,213	31,243	5,788	4,720	87,250	81,294
1975	180,083	172,675	52,420	49,444	36,956	35,616	4,326	4,536	86,381	83,079
1976	210,740	189,179	63,743	53,278	43,934	41,764	4,859	4,720	98,204	89,417
1977	257,600	222,138	75,641	60,437	87,596	81,348	5,712	5,341	88,651	75,012
1978	297,668	254,589	87,981	69,245	105,125	96,090	5,412	5,126	99,150	84,128
1979	324,777	286,396	93,901	79,186	120,174	111,546	6,471	4,868	104,231	90,796
1979:										
Jan.	26,582	22,368	7,924	5,893	9,553	8,716	613	323	8,492	7,436
Feb.	27,223	23,003	7,905	6,224	9,871	8,989	675	399	8,772	7,391
Mar.	26,173	22,823	7,789	6,210	9,533	8,877	615	414	8,236	7,322
Apr.	26,930	23,121	7,955	6,567	9,724	8,891	496	431	8,755	7,232
May	27,595	24,429	8,100	6,960	9,941	9,164	609	424	8,945	7,881
June	26,231	23,620	7,427	6,439	9,919	9,326	498	430	8,387	7,425
July	27,108	24,292	7,586	6,770	9,949	9,442	492	430	9,081	7,650
Aug.	27,593	24,862	7,802	6,931	10,303	9,494	527	413	8,961	8,024
Sept.	28,109	24,101	8,380	6,667	10,356	9,610	507	411	8,866	7,413
Oct.	27,712	24,679	7,814	6,860	10,439	9,579	531	405	8,928	7,835
Nov.	26,895	24,201	7,470	6,676	10,500	9,781	488	398	8,437	7,346
Dec.	26,638	24,605	7,735	6,721	10,146	9,745	453	368	8,304	7,771
1980:										
Jan.	27,923	25,196	8,441	6,903	10,500	9,971	522	418	8,460	7,904
Feb.	27,581	25,178	7,973	6,991	10,756	10,034	452	397	8,400	7,756
Mar.	25,881	25,227	7,372	6,859	10,634	10,373	435	380	7,440	7,615
Apr.	23,220	24,891	5,922	6,565	10,347	10,677	397	383	6,554	7,266
May	22,093	24,770	5,533	6,574	10,302	10,589	299	349	5,959	7,258
June	22,349	24,394	5,550	6,576	10,341	10,436	424	366	6,034	7,016
July	23,997	25,196	6,068	6,785	10,679	10,641	377	363	6,873	7,407
Aug.	26,176	25,687	7,400	7,045	10,700	10,419	415	382	7,661	7,841
Sept.	27,064	26,009	7,518	7,434	11,143	10,665	442	399	7,961	7,511
Oct.	27,365	26,663	7,544	7,343	11,124	10,851	513	372	8,184	8,097
Nov.	25,991	25,152	7,117	6,872	10,953	10,688	424	400	7,497	7,192

¹ Consists of credit cards at retailers, gasoline companies, and commercial banks, and check credit at commercial banks. Prior to 1968, included in "other," except gasoline companies, included in noninstallment credit prior to 1971. Beginning 1977, includes open-end credit at retailers, previously included in "other." Also beginning 1977, some retail credit was reclassified from commercial into consumer credit. Credit secured by real estate is generally excluded.

² Not reported separately prior to July 1970.

Note.—Installment credit covers most short- and intermediate-term credit extended to individuals through regular business channels, usually to finance the purchase of consumer goods and services or to refinance debts incurred for such purposes, and scheduled to be repaid (or with the option of repayment) in two or more installments.

Liquidated credit includes repayments, chargeoffs, and other credit.

See also Table B-66.

Source: Board of Governors of the Federal Reserve System.

TABLE B-68.—Mortgage debt outstanding by type of property and of financing, 1939-80

(Billions of dollars)

End of year or quarter	All properties	Farm properties	Nonfarm properties				Nonfarm properties by type of mortgage					
			Total	1- to 4-family houses	Multi-family properties	Commercial properties ¹	Government underwritten				Conventional ²	
							Total ³	1- to 4-family houses			Total	1- to 4-family houses
								Total	FHA insured	VA guaranteed		
1939.....	35.5	6.6	28.9	16.3	5.6	7.0	1.8	1.8	1.8	.....	27.1	14.5
1940.....	36.5	6.5	30.0	17.4	5.7	6.9	2.3	2.3	2.3	.....	27.7	15.1
1941.....	37.6	6.4	31.2	18.4	5.9	7.0	3.0	3.0	3.0	.....	28.2	15.4
1942.....	36.7	6.0	30.8	18.2	5.8	6.7	3.7	3.7	3.7	.....	27.1	14.5
1943.....	35.3	5.4	29.9	17.8	5.8	6.3	4.1	4.1	4.1	.....	25.8	13.7
1944.....	34.7	4.9	29.7	17.9	5.6	6.2	4.2	4.2	4.2	.....	25.5	13.7
1945.....	35.5	4.8	30.8	18.6	5.7	6.4	4.3	4.3	4.1	0.2	26.5	14.3
1946.....	41.8	4.9	36.9	23.0	6.1	7.7	6.3	6.1	3.7	2.4	30.6	16.9
1947.....	48.9	5.1	43.9	28.2	6.6	9.1	9.8	9.3	3.8	5.5	34.1	18.9
1948.....	56.2	5.3	50.9	33.3	7.5	10.2	13.6	12.5	5.3	7.2	37.3	20.8
1949.....	62.7	5.6	57.1	37.6	8.6	10.8	17.1	15.0	6.9	8.1	40.0	22.6
1950.....	72.8	6.1	66.7	45.2	10.1	11.5	22.1	18.9	8.6	10.3	44.6	26.3
1951.....	82.3	6.7	75.6	51.7	11.5	12.5	26.6	22.9	9.7	13.2	49.0	28.8
1952.....	91.4	7.2	84.2	58.5	12.3	13.4	29.3	25.4	10.8	14.6	54.9	33.1
1953.....	101.3	7.7	93.6	66.1	12.9	14.5	32.1	28.1	12.0	16.1	61.5	38.0
1954.....	113.7	8.2	105.4	75.7	13.5	16.3	36.2	32.1	12.8	19.3	69.2	43.6
1955.....	129.9	9.0	120.9	88.2	14.3	18.3	42.9	38.9	14.3	24.6	78.0	49.3
1956.....	144.5	9.8	134.6	99.0	14.9	20.7	47.8	43.9	15.5	28.4	86.8	55.1
1957.....	156.5	10.4	146.1	107.6	15.3	23.2	51.6	47.2	16.5	30.7	94.6	60.4
1958.....	171.8	11.1	160.7	117.7	16.8	26.1	55.1	50.1	19.7	30.4	105.5	67.6
1959.....	190.8	12.1	178.7	130.9	18.7	29.2	59.3	53.8	23.8	30.0	119.4	77.0
1960.....	207.5	12.8	194.7	141.9	20.3	32.4	62.3	56.4	26.7	29.7	132.3	85.5
1961.....	228.0	13.9	214.1	154.7	23.0	36.4	65.6	59.1	29.5	29.6	148.5	95.6
1962.....	251.4	15.2	236.2	169.3	25.8	41.1	69.4	62.2	32.3	29.9	166.9	107.1
1963.....	278.5	16.8	261.7	186.4	29.0	46.2	73.4	65.9	35.0	30.9	188.2	120.5
1964.....	305.9	18.9	287.0	203.4	33.6	50.0	77.2	69.2	38.3	30.9	209.8	134.1
1965.....	333.3	21.2	312.1	220.5	37.2	54.5	81.2	73.1	42.0	31.1	231.0	147.4
1966.....	356.5	23.1	333.4	232.9	40.3	60.1	84.1	76.1	44.8	31.3	249.3	156.9
1967.....	381.2	25.1	356.1	247.3	43.9	64.8	88.2	79.9	47.4	32.5	267.9	167.4
1968.....	410.9	27.4	383.5	264.8	47.3	71.4	93.4	84.4	50.6	33.8	290.1	180.4
1969.....	441.4	29.2	412.2	282.8	52.3	77.1	100.2	90.2	54.5	35.7	312.0	192.7
1970.....	474.2	30.3	443.8	298.1	60.1	85.6	109.2	97.3	59.9	37.3	334.6	200.8
1971.....	526.5	32.2	494.3	328.3	70.1	95.9	120.7	105.2	65.7	39.5	373.5	223.1
1972.....	603.4	35.8	567.7	372.2	82.8	112.7	131.1	113.0	68.2	44.7	436.5	259.2
1973.....	682.3	41.3	641.1	416.2	93.1	131.7	135.0	116.2	66.2	50.0	506.0	300.0
1974.....	742.5	46.3	696.2	449.4	100.0	146.9	140.2	121.3	65.1	56.2	556.0	328.1
1975.....	801.5	50.9	750.7	490.8	100.6	159.3	147.0	127.7	66.1	61.6	603.7	363.0
1976.....	889.2	57.0	832.2	556.5	104.5	171.2	154.1	133.5	66.5	67.0	678.0	422.9
1977.....	1,023.5	65.8	957.7	656.6	111.8	189.3	161.7	141.6	68.0	73.6	795.9	515.0
1978.....	1,172.8	76.2	1,096.6	761.8	122.0	212.7	176.4	153.4	71.4	82.0	920.2	608.5
1979.....	1,333.6	92.4	1,241.2	872.1	130.7	238.4	199.0	172.9	81.0	92.0	1,042.2	699.1
1978:												
I.....	1,051.7	68.1	983.7	676.4	113.7	193.6	165.3	144.7	68.6	76.1	818.4	531.7
II.....	1,092.2	70.9	1,021.4	706.3	116.4	198.7	167.4	146.7	69.2	77.6	853.9	559.6
III.....	1,133.5	73.8	1,059.7	734.8	119.4	205.6	174.7	150.7	69.9	80.8	885.1	584.0
IV.....	1,172.8	76.2	1,096.6	761.8	122.0	212.7	176.4	153.4	71.4	82.0	920.2	608.5
1979:												
I.....	1,206.2	80.2	1,126.0	784.5	124.0	217.5	183.0	158.4	73.9	84.5	943.1	626.2
II.....	1,252.4	85.1	1,167.4	817.0	125.9	224.5	187.1	162.2	76.4	85.8	980.3	654.7
III.....	1,295.9	89.2	1,206.8	846.3	128.3	232.2	194.3	168.2	79.1	89.2	1,012.5	678.1
IV.....	1,333.6	92.4	1,241.2	872.1	130.7	238.4	199.0	172.9	81.0	92.0	1,042.2	699.1
1980:												
I.....	1,363.8	97.0	1,266.8	891.2	132.1	243.5	207.5	180.8	86.0	94.8	1,059.2	710.3
II.....	1,386.3	101.4	1,285.0	904.2	133.6	247.1	210.8	184.1	87.4	96.7	1,074.1	720.1
III.....	1,449.2	104.3	1,344.9	926.2	136.0	252.7	.....	.....	99.4	.....	.....	.....

¹ Includes negligible amount of farm loans held by savings and loan associations.² Includes FHA insured multifamily properties, not shown separately.³ Derived figures. Total includes multifamily and commercial properties, not shown separately.

Source: Board of Governors of the Federal Reserve System, based on data from various Government and private organizations.

TABLE B-69.—*Mortgage debt outstanding by holder, 1939-80*

[Billions of dollars]

End of year or quarter	Total	Major financial institutions					Other holders	
		Total	Savings and loan associations	Mutual savings banks	Commercial banks ¹	Life insurance companies	Federal and related agencies ²	Individuals and others
1939.....	35.5	18.6	3.8	4.8	4.3	5.7	5.0	11.9
1940.....	36.5	19.5	4.1	4.9	4.6	6.0	4.9	12.0
1941.....	37.6	20.7	4.6	4.8	4.9	6.4	4.7	12.2
1942.....	36.7	20.7	4.6	4.6	4.7	6.7	4.3	11.7
1943.....	35.3	20.2	4.6	4.4	4.5	6.7	3.6	11.5
1944.....	34.7	20.2	4.8	4.3	4.4	6.7	3.0	11.5
1945.....	35.5	21.0	5.4	4.2	4.8	6.6	2.4	12.1
1946.....	41.8	26.0	7.1	4.4	7.2	7.2	2.0	13.8
1947.....	48.9	31.8	8.9	4.9	9.4	8.7	1.8	15.3
1948.....	56.2	37.8	10.3	5.8	10.9	10.8	1.8	16.6
1949.....	62.7	42.9	11.6	6.7	11.6	12.9	2.3	17.5
1950.....	72.8	51.7	13.7	8.3	13.7	16.1	2.8	18.4
1951.....	82.3	59.5	15.6	9.9	14.7	19.3	3.5	19.3
1952.....	91.4	66.9	18.4	11.4	15.9	21.3	4.1	20.4
1953.....	101.3	75.1	22.0	12.9	16.9	23.3	4.6	21.7
1954.....	113.7	85.7	26.1	15.0	18.6	26.0	4.8	23.2
1955.....	129.9	99.3	31.4	17.5	21.0	29.4	5.3	25.3
1956.....	144.5	111.2	35.7	19.7	22.7	33.0	6.2	27.1
1957.....	156.5	119.7	40.0	21.2	23.3	35.2	7.7	29.1
1958.....	171.8	131.5	45.6	23.3	25.5	37.1	8.0	32.3
1959.....	190.8	145.5	53.1	25.0	28.1	39.2	10.2	35.1
1960.....	207.5	157.6	60.1	26.9	28.8	41.8	11.5	38.4
1961.....	228.0	172.6	68.8	29.1	30.4	44.2	12.2	43.1
1962.....	251.4	192.5	78.8	32.3	34.5	46.9	12.6	46.3
1963.....	278.5	217.1	90.9	36.2	39.4	50.5	11.8	49.5
1964.....	305.9	241.0	101.3	40.6	44.0	55.2	12.2	52.7
1965.....	333.3	264.6	110.3	44.6	49.7	60.0	13.5	55.2
1966.....	356.5	280.8	114.4	47.3	54.4	64.6	17.5	58.2
1967.....	381.2	298.8	121.8	50.5	59.0	67.5	20.9	61.4
1968.....	410.9	319.9	130.8	53.5	65.7	70.0	25.1	65.9
1969.....	441.4	339.1	140.2	56.1	70.7	72.0	31.1	71.2
1970.....	474.2	355.9	150.3	57.9	73.3	74.4	38.3	79.9
1971.....	526.5	394.2	174.3	62.0	82.5	75.5	46.4	85.9
1972.....	603.4	450.0	206.2	67.6	95.3	76.9	54.6	98.9
1973.....	682.3	505.4	231.7	73.2	118.1	81.4	64.8	112.2
1974.....	742.5	542.6	249.3	74.9	132.1	86.2	82.1	117.8
1975.....	801.5	581.2	278.6	77.2	136.2	89.2	101.0	119.3
1976.....	889.2	647.5	323.0	81.6	151.3	91.6	116.6	125.1
1977.....	1,023.5	745.0	381.2	88.1	179.0	96.8	140.3	138.2
1978.....	1,172.8	848.1	432.8	95.2	214.0	106.2	170.5	154.2
1979.....	1,333.6	939.5	475.8	98.9	246.0	118.8	216.6	177.5
1978:								
I.....	1,051.7	764.6	392.4	89.8	184.4	97.9	146.0	141.2
II.....	1,092.2	793.8	407.9	91.5	194.5	99.9	152.6	145.8
III.....	1,133.5	822.0	420.9	93.4	205.4	102.2	161.4	150.2
IV.....	1,172.8	848.1	432.8	95.2	214.0	106.2	170.5	154.2
1979:								
I.....	1,206.2	866.0	441.4	96.1	220.1	108.4	181.2	159.0
II.....	1,252.4	894.4	456.5	97.2	229.6	111.1	192.4	165.7
III.....	1,295.9	920.2	468.3	97.9	239.6	114.4	203.8	171.9
IV.....	1,333.6	939.5	475.8	98.9	246.0	118.8	216.6	177.5
1980:								
I.....	1,363.8	951.9	479.1	99.2	251.2	122.5	228.8	183.2
II.....	1,386.3	958.9	481.2	99.2	253.1	125.5	238.4	189.1
III.....	1,419.2	977.5	492.1	99.3	258.0	128.1	246.1	195.7

¹ Includes loans held by nondeposit trust companies, but not by bank trust departments.² Includes former Federal National Mortgage Association (FNMA) and new Government National Mortgage Association (GNMA), as well as Federal Housing Administration, Veterans Administration, Public Housing Administration, Farmers Home Administration, and in earlier years Reconstruction Finance Corporation, Homeowners Loan Corporation, and Federal Farm Mortgage Corporation. Also includes GNMA Pools and U.S.-sponsored agencies such as new FNMA, Federal Land Banks, and Federal Home Loan Mortgage Corporation. Other U.S. agencies (amounts small or current separate data not readily available) included with "individuals and others."

Source: Board of Governors of the Federal Reserve System, based on data from various Government and private organizations.

GOVERNMENT FINANCE

TABLE B-70.—Federal budget receipts, outlays, and debt, fiscal years 1971-82

(Millions of dollars; fiscal years)

Description	Actual						
	1971	1972	1973	1974	1975	1976	Transition quarter
BUDGET RECEIPTS AND OUTLAYS:							
Total receipts.....	188,392	208,649	232,225	264,932	280,997	300,005	81,773
Federal funds.....	133,785	148,846	161,357	181,219	187,505	201,099	54,085
Trust funds.....	66,193	72,959	92,193	104,846	118,590	133,695	32,071
Interfund transactions.....	-11,586	-13,156	-21,325	-21,133	-25,098	-34,789	-4,383
Total outlays.....	211,425	232,021	247,074	269,620	326,151	366,418	94,728
Federal funds.....	163,651	178,110	186,951	199,918	240,081	269,921	65,088
Trust funds.....	59,360	67,067	81,448	90,835	111,168	131,286	34,023
Interfund transactions.....	-11,586	-13,156	-21,325	-21,133	-25,098	-34,789	-4,383
Total surplus or deficit (-).....	-23,033	-23,373	-14,849	-4,688	-45,154	-66,413	-12,956
Federal funds.....	-29,866	-29,264	-25,594	-18,699	-52,576	-68,822	-11,004
Trust funds.....	6,833	5,892	10,745	14,011	7,422	2,409	-1,952
OUTSTANDING DEBT, END OF PERIOD:							
Gross Federal debt.....	409,467	437,329	468,426	486,247	544,131	631,866	646,379
Held by Government agencies.....	105,140	113,559	125,381	140,194	147,225	151,566	148,052
Held by the public.....	304,328	323,770	343,045	346,053	396,906	480,300	498,327
Federal Reserve System.....	65,518	71,426	75,181	80,648	84,993	94,714	96,702
Other.....	238,810	252,344	267,863	265,405	311,913	385,586	401,625
BUDGET RECEIPTS.....							
Individual income taxes.....	86,230	94,737	103,246	118,952	122,386	131,603	38,801
Corporation income taxes.....	26,785	32,166	36,153	38,620	40,621	41,409	8,460
Social insurance taxes and contributions.....	48,578	53,914	64,542	76,780	86,441	92,714	25,760
Excise taxes.....	16,614	15,477	16,260	16,844	16,551	16,963	4,473
Estate and gift taxes.....	3,735	5,436	4,917	5,035	4,611	5,216	1,455
Customs duties.....	2,591	3,287	3,188	3,334	3,676	4,074	1,212
Miscellaneous receipts:							
Deposits of earnings by Federal Reserve System.....	3,533	3,252	3,495	4,845	5,777	5,451	1,500
All other.....	325	381	426	524	934	2,575	112
BUDGET OUTLAYS.....							
National defense.....	75,808	76,550	74,541	77,781	85,552	89,430	22,307
International affairs.....	4,097	4,693	4,066	5,681	6,922	5,552	2,193
General science, space, and technology.....	4,180	4,173	4,030	3,977	3,989	4,370	1,161
Energy.....	1,031	1,270	1,179	837	2,169	3,127	794
Natural resources and environment.....	3,909	4,235	4,763	5,670	7,336	8,124	2,532
Agriculture.....	4,288	5,280	4,852	2,227	1,659	2,504	581
Commerce and housing credit.....	2,358	2,216	924	3,925	5,607	3,792	1,392
Transportation.....	8,050	8,388	9,065	9,172	10,388	13,435	3,304
Community and regional development.....	2,916	3,422	4,595	4,134	3,738	4,767	1,340
Education, training, employment, and social services.....	9,839	12,519	12,735	12,344	15,870	18,737	5,162
Health.....	14,716	17,467	18,832	22,073	27,648	33,448	8,721
Income security.....	55,426	63,913	72,965	84,437	108,576	127,390	32,797
Veterans benefits and services.....	9,776	10,730	12,013	13,386	16,597	18,432	3,962
Administration of justice.....	1,299	1,650	2,131	2,462	2,942	3,320	859
General government.....	2,020	2,415	2,568	3,243	3,133	2,948	883
General purpose fiscal assistance.....	535	673	7,351	6,890	7,187	7,235	2,092
Interest.....	19,602	20,563	22,782	28,032	30,911	34,511	7,216
Allowances.....							
Undistributed offsetting receipts.....	-8,427	-8,137	-12,318	-16,651	-14,075	-14,704	-2,567
Composition of undistributed offsetting receipts:							
Employer share, employee retirement.....	-2,611	-2,768	-2,927	-3,319	-3,980	-4,242	-985
Interest received by trust funds.....	-4,765	-5,089	-5,436	-6,583	-7,667	-7,800	-270
Rents and royalties on the Outer Continental Shelf.....	-1,051	-279	-3,956	-6,748	-2,428	-2,662	-1,311

See next page for continuation of table.

TABLE B-70.—Federal budget receipts, outlays, and debt, fiscal years 1971-82—Continued

[Millions of dollars; fiscal years]

Description	Actual				Estimate	
	1977	1978	1979	1980	1981	1982
BUDGET RECEIPTS AND OUTLAYS:						
Total receipts.....	357,762	401,997	465,940	520,050	607,525	711,780
Federal funds.....	241,312	270,484	316,351	350,849	415,239	484,105
Trust funds.....	152,763	168,012	189,641	213,875	242,545	286,113
Interfund transactions.....	-36,313	-36,498	-40,052	-44,674	-50,259	-58,437
Total outlays.....	402,710	450,804	493,635	579,613	662,740	739,296
Federal funds.....	295,756	331,985	362,381	419,214	474,932	530,817
Trust funds.....	143,267	155,318	171,305	205,074	238,068	266,916
Interfund transactions.....	-36,313	-36,498	-40,052	-44,674	-50,259	-58,437
Total surplus or deficit (—).....	-44,948	-48,807	-27,694	-59,563	-55,215	-27,516
Federal funds.....	-54,444	-61,804	-46,030	-68,364	-59,693	-46,712
Trust funds.....	9,496	12,694	18,335	8,801	4,477	19,196
OUTSTANDING DEBT, END OF PERIOD:						
Gross Federal debt.....	709,138	780,425	833,751	914,317	992,398	1,057,664
Held by Government agencies.....	157,295	169,477	189,162	199,212	205,293	225,559
Held by the public.....	551,843	610,948	644,589	715,105	787,105	832,105
Federal Reserve System.....	105,004	115,480	115,594	120,846	.....	.....
Other.....	446,839	495,468	528,996	594,259	.....	.....
BUDGET RECEIPTS.....	357,762	401,997	465,940	520,050	607,525	711,780
Individual income taxes.....	157,626	180,988	217,841	244,069	284,013	331,677
Corporation income taxes.....	54,892	59,952	65,677	64,600	66,009	64,648
Social insurance taxes and contributions.....	108,688	123,410	141,591	160,747	184,824	214,664
Excise taxes.....	17,548	18,376	18,745	24,329	44,393	69,633
Estate and gift taxes.....	7,327	5,285	5,411	6,389	6,909	7,668
Customs duties.....	5,150	6,573	7,439	7,174	7,439	7,800
Miscellaneous receipts:	.....	.....	.....	.....	.....	.....
Deposits of earnings by Federal Reserve System.....	5,908	6,641	8,327	11,767	13,069	14,710
All other.....	622	772	910	975	899	980
BUDGET OUTLAYS.....	402,710	450,804	493,635	579,613	662,740	739,296
National defense.....	97,501	105,186	117,681	135,856	161,088	184,399
International affairs.....	4,813	5,922	6,091	10,733	11,314	12,152
General science, space, and technology.....	4,677	4,742	5,041	5,722	6,258	7,590
Energy.....	4,172	5,861	6,856	6,313	8,739	11,973
Natural resources and environment.....	10,000	10,925	12,091	13,812	14,110	14,039
Agriculture.....	5,532	7,731	6,238	4,762	1,112	4,803
Commerce and housing credit.....	98	3,324	2,565	7,782	3,456	8,058
Transportation.....	14,636	15,445	17,459	21,120	24,054	21,551
Community and regional development.....	6,348	11,070	9,542	10,068	11,144	9,084
Education, training, employment, and social services.....	20,985	26,463	29,685	30,767	31,773	34,511
Health.....	38,785	43,676	49,614	58,165	66,032	74,636
Income security.....	137,900	146,181	160,159	193,100	231,650	255,006
Veterans benefits and services.....	18,038	18,974	19,928	21,183	22,591	24,462
Administration of justice.....	3,600	3,802	4,153	4,570	4,786	4,882
General government.....	3,169	3,706	4,093	4,505	5,170	5,246
General purpose fiscal assistance.....	9,499	9,601	8,372	8,584	6,854	6,902
Interest.....	38,009	43,966	52,556	64,504	80,405	89,946
Allowances.....	.....	.....	.....	.....	.....	1,920
Undistributed offsetting receipts.....	-15,053	-15,772	-18,488	-21,933	-27,796	-31,863
Composition of undistributed offsetting receipts:	.....	.....	.....	.....	.....	.....
Employer share, employee retirement.....	-4,548	-4,983	-5,271	-5,787	-6,561	-6,798
Interest received by trust funds.....	-8,131	-8,530	-9,950	-12,045	-13,435	-15,165
Rents and royalties on the Outer Continental Shelf.....	-2,374	-2,259	-3,267	-4,101	-7,800	-9,900

Note.—Under provisions of the Congressional Budget Act of 1974, the fiscal year for the Federal Government shifted beginning with fiscal year 1977. 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 period 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 1982" for additional information.

Sources: Department of the Treasury and Office of Management and Budget.

TABLE B-71.—Federal budget receipts and outlays, fiscal years 1929-82

(Millions of dollars)

Fiscal year	Receipts	Outlays	Surplus or deficit (-)
1929	3,862	3,127	734
1933	1,997	4,598	-2,602
1939	4,979	8,841	-3,862
1940	6,361	9,456	-3,095
1941	8,621	13,634	-5,013
1942	14,350	35,114	-20,764
1943	23,649	78,533	-54,884
1944	44,276	91,280	-47,004
1945	45,216	92,690	-47,474
1946	39,327	55,183	-15,856
1947	38,394	34,532	3,862
1948	41,774	29,773	12,001
1949	39,437	38,834	603
1950	39,485	42,597	-3,112
1951	51,646	45,546	6,100
1952	66,204	67,721	-1,517
1953	69,574	76,107	-6,533
1954	69,719	70,890	-1,170
1955	65,469	68,509	-3,041
1956	74,547	70,460	4,087
1957	79,990	76,741	3,249
1958	79,636	82,575	-2,939
1959	79,249	92,104	-12,855
1960	92,492	92,223	269
1961	94,389	97,795	-3,406
1962	99,676	106,813	-7,137
1963	106,560	111,311	-4,751
1964	112,662	118,584	-5,922
1965	116,833	118,430	-1,596
1966	130,856	134,652	-3,796
1967	149,552	158,254	-8,702
1968	153,671	178,833	-25,161
1969	187,784	184,548	3,236
1970	193,743	196,588	-2,845
1971	188,392	211,425	-23,033
1972	208,649	232,021	-23,373
1973	232,225	247,074	-14,849
1974	264,932	269,620	-4,688
1975	280,997	326,151	-45,154
1976	300,005	366,418	-66,413
Transition quarter	81,773	94,728	-12,956
1977	357,762	402,710	-44,948
1978	401,997	450,804	-48,807
1979	465,940	493,635	-27,694
1980	520,050	579,613	-59,563
1981 ¹	607,525	662,740	-55,215
1982 ¹	711,780	739,296	-27,516

¹ Estimates.

Note.—Under provisions of the Congressional Budget Act of 1974, the fiscal year for the Federal Government shifted beginning with fiscal year 1977. 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.

Data for 1929-39 are according to the administrative budget and those beginning 1940 according to the unified budget. Refunds of receipts are excluded from receipts and outlays.

See "Budget of the United States Government, Fiscal Year 1982" for additional information.

Sources: Department of the Treasury and Office of Management and Budget.

TABLE B-72.—*Relation of Federal Government receipts and expenditures in the national income and product accounts to the unified budget, fiscal years 1980-82*

[Billions of dollars; fiscal years]

Receipts and expenditures	1980	Estimate	
		1981	1982
RECEIPTS			
Total budget receipts.....	520.0	607.5	711.8
Government contribution for employee retirement (grossing)	8.6	9.7	10.3
Other netting and grossing.....	4.0	6.4	6.3
Adjustment to accruals.....	-4.4	-8.0	1.1
Geographic exclusions	-1.2	-1.5	-1.5
Other.....	.3	.3	.2
Federal sector, national income and product accounts, receipts.....	527.3	614.4	728.2
EXPENDITURES			
Total budget outlays.....	579.6	662.7	739.3
Lending and financial transactions.....	-10.3	-6.1	-6.8
Government contribution for employee retirement (grossing)	8.6	9.7	10.3
Other netting and grossing.....	4.0	6.4	6.3
Defense timing adjustment.....	-7	-9	-2.3
Bonuses on Outer Continental Shelf land leases.....	2.2	5.2	6.1
Geographic exclusions	-4.5	-4.9	-5.3
Other.....	-8	-1.1	-1.3
Federal sector, national income and product accounts, expenditures.....	578.2	671.0	746.3

Note.—See Note, Table B-71.

See Special Analysis B, "Special Analyses, Budget of the United States Government, Fiscal Year 1982" for description of these categories.

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

TABLE B-73.—Government receipts and expenditures, national income and product accounts, 1929-80

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Calendar year or quarter	Total government			Federal Government			State and local government		
	Receipts	Expenditures	Surplus or deficit (—), national income and product accounts	Receipts	Expenditures	Surplus or deficit (—), national income and product accounts	Receipts	Expenditures	Surplus or deficit (—), national income and product accounts
1929.....	11.3	10.3	1.0	3.8	2.6	1.2	7.6	7.8	-0.2
1933.....	9.3	10.7	-1.4	2.7	4.0	-1.3	7.2	7.2	-.1
1939.....	15.4	17.6	-2.2	6.7	8.9	-2.2	9.6	9.6	.0
1940.....	17.7	18.4	-.7	8.6	10.0	-1.3	10.0	9.3	.6
1941.....	25.0	28.8	-3.8	15.4	20.5	-5.1	10.4	9.1	1.3
1942.....	32.6	64.0	-31.4	22.9	56.1	-33.1	10.6	8.8	1.8
1943.....	49.2	93.3	-44.1	39.3	85.8	-46.6	10.9	8.4	2.5
1944.....	51.2	103.0	-51.8	41.0	95.5	-54.5	11.1	8.5	2.7
1945.....	53.2	92.7	-39.5	42.5	84.6	-42.1	11.6	9.0	2.6
1946.....	51.0	45.6	5.4	39.1	35.6	3.5	13.0	11.1	1.9
1947.....	56.9	42.5	14.4	43.2	29.8	13.4	15.4	14.4	1.0
1948.....	58.9	50.5	8.4	43.2	34.9	8.3	17.7	17.6	.1
1949.....	55.9	59.3	-3.4	38.7	41.3	-2.6	19.5	20.2	-.7
1950.....	69.0	61.0	8.0	50.0	40.8	9.2	21.3	22.5	-1.2
1951.....	85.2	79.2	6.1	64.3	57.8	6.5	23.4	23.9	-.4
1952.....	90.1	93.9	-3.8	67.3	71.1	-3.7	25.4	25.5	-.0
1953.....	94.6	101.6	-6.9	70.0	77.1	-7.1	27.4	27.3	.1
1954.....	89.9	97.0	-7.1	63.7	69.8	-6.0	29.0	30.2	-1.1
1955.....	101.1	98.0	3.1	72.6	68.1	4.4	31.7	32.9	-1.3
1956.....	109.7	104.5	5.2	78.0	71.9	6.1	35.0	35.9	-.9
1957.....	116.2	115.3	.9	81.9	79.6	2.3	38.5	39.8	-1.4
1958.....	115.0	127.6	-12.6	87.7	88.9	-10.3	42.0	44.3	-2.4
1959.....	129.4	131.0	-1.6	89.8	91.0	-1.1	46.4	46.9	-.4
1960.....	139.5	136.4	3.1	96.1	93.1	3.0	49.9	49.8	.1
1961.....	144.8	149.1	-4.3	98.1	101.9	-3.9	54.0	54.4	-.4
1962.....	156.7	160.5	-3.8	106.2	110.4	-4.2	58.5	58.0	.5
1963.....	168.5	167.8	.7	114.4	114.2	.3	63.2	62.8	.5
1964.....	174.0	176.3	-2.3	114.9	118.2	-3.3	69.5	68.5	1.0
1965.....	183.3	187.8	-4.5	124.3	123.8	.5	75.1	75.1	.0
1966.....	212.3	212.6	-.3	141.8	143.6	-1.8	84.8	84.3	.5
1967.....	228.2	242.4	-14.2	150.5	163.7	-13.2	93.6	94.7	-1.1
1968.....	263.1	269.1	-6.0	174.4	180.5	-6.0	107.3	107.2	.1
1969.....	296.7	286.8	9.9	196.9	188.4	8.4	120.2	118.7	1.5
1970.....	302.8	313.4	-10.6	191.9	204.3	-12.4	135.4	133.5	1.9
1971.....	322.6	342.0	-19.4	198.6	220.6	-22.0	153.0	150.4	2.6
1972.....	368.3	371.6	-3.3	227.5	244.3	-16.8	178.3	164.8	13.5
1973.....	413.1	405.3	7.8	258.6	264.2	-5.6	195.0	181.6	13.4
1974.....	455.2	460.0	-4.7	287.8	299.3	-11.5	211.4	204.6	6.8
1975.....	470.5	534.3	-63.8	287.3	356.6	-69.3	237.7	232.2	5.5
1976.....	538.4	574.9	-36.5	331.8	384.8	-53.1	267.8	251.2	16.6
1977.....	605.7	624.0	-18.3	375.1	421.5	-46.4	298.0	270.0	28.1
1978.....	681.6	681.9	-.2	431.5	460.7	-29.2	327.4	298.4	29.0
1979.....	765.2	753.2	11.9	494.4	509.2	-14.8	351.2	324.4	26.7
1980.....	834.2	869.0	-34.8	538.9	601.2	-62.3	382.6	355.0	27.6
1978:									
I.....	640.7	658.4	-17.7	398.6	447.4	-48.8	316.9	285.8	31.1
II.....	674.2	669.3	4.9	423.6	451.1	-27.4	328.0	295.7	32.3
III.....	691.2	690.0	1.1	440.9	463.7	-22.8	327.2	303.3	23.9
IV.....	720.5	709.7	10.8	462.7	480.6	-17.9	337.7	309.0	28.7
1979:									
I.....	739.7	721.7	18.1	477.0	488.4	-11.5	340.9	311.4	29.5
II.....	750.9	737.0	13.9	485.9	494.0	-8.1	342.7	320.8	21.9
III.....	775.3	764.0	11.3	500.6	515.8	-15.2	355.4	328.9	26.5
IV.....	794.7	790.3	4.4	514.0	538.6	-24.5	365.6	336.7	28.9
1980:									
I.....	815.0	824.6	-9.6	528.4	564.7	-36.3	372.1	345.4	26.6
II.....	807.6	850.2	-42.5	520.9	587.3	-66.5	373.9	350.0	23.9
III.....	839.9	885.6	-45.6	540.8	615.0	-74.2	386.8	358.2	28.5

Note.—Federal grants-in-aid to State and local governments are reflected in Federal expenditures and State and local receipts. Total government receipts and expenditures have been adjusted to eliminate this duplication.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-74.—Federal Government receipts and expenditures, national income and product accounts, 1958-82

(Billions of dollars; quarterly data at seasonally adjusted annual rates)

Year or quarter	Receipts					Expenditures							Surplus or deficit (—), national income and product accounts
	Total	Personal tax and nontax receipts	Corporate profits tax accruals	Indirect business tax and nontax accruals	Contributions for social insurance	Total ¹	Purchases of goods and services	Transfer payments		Grants-in-aid to State and local governments	Net interest paid	Subsidies less current surplus of government enterprises	
								To persons	To foreigners				
Fiscal year: ²													
1958	78.1	36.3	17.9	11.6	12.3	82.8	51.1	17.8	1.7	4.7	5.4	2.4	-4.7
1959	85.4	38.2	21.4	12.0	13.9	91.2	54.8	19.9	1.8	6.2	5.6	2.5	-5.8
1960	94.8	42.5	22.3	13.2	16.7	91.3	52.9	20.6	1.8	6.9	6.8	2.4	-3.4
1961	95.0	43.6	20.0	13.3	18.1	98.1	55.8	23.6	2.1	6.9	6.4	3.3	-3.1
1962	104.0	47.3	22.7	14.2	19.9	106.2	61.0	25.1	2.1	7.6	6.4	4.1	-2.2
1963	110.0	49.6	23.3	15.0	22.1	111.7	63.7	26.5	2.1	8.3	7.1	4.0	-1.7
1964	115.6	50.7	25.7	15.6	23.6	117.2	65.9	27.4	2.2	9.8	7.7	4.1	-1.5
1965	120.0	51.4	27.1	16.9	24.5	118.5	64.6	28.4	2.2	10.9	8.2	4.3	1.4
1966	132.7	57.5	30.8	15.5	28.9	132.7	72.4	31.8	2.3	12.7	8.7	4.8	0
1967	146.0	64.4	30.3	15.8	35.5	154.9	86.0	37.2	2.2	14.8	9.6	5.2	-8.9
1968	159.9	71.4	33.1	17.1	38.3	172.2	95.0	42.7	2.1	17.8	10.4	4.1	-12.3
1969	189.8	90.2	36.8	18.6	44.2	184.6	98.0	48.7	2.2	19.2	11.9	4.7	5.2
1970	194.8	94.0	32.9	19.2	48.8	195.5	97.1	55.0	2.0	22.6	13.5	5.5	-7
1971	192.4	87.9	31.9	20.0	52.6	212.9	94.9	67.7	2.3	26.8	14.0	7.0	-20.5
1972	213.4	100.5	34.2	19.9	58.9	232.7	100.6	76.1	2.8	32.6	14.0	6.5	-19.2
1973	240.7	107.4	41.2	20.7	71.5	255.7	101.1	87.2	2.7	40.4	15.7	9.2	-14.9
1974	271.6	122.7	43.4	21.4	84.2	278.2	104.5	101.8	3.0	41.6	19.6	7.6	-6.6
1975	283.4	127.5	41.8	22.2	91.9	328.8	117.9	131.4	3.1	48.4	21.7	6.0	-45.4
1976	314.9	137.2	52.5	24.4	101.0	370.7	125.1	153.8	3.0	57.5	25.2	6.2	-55.8
1977	365.9	166.4	58.8	24.5	116.2	411.7	140.3	166.6	3.2	66.3	28.4	7.0	-45.8
1978	414.2	186.4	67.2	27.2	133.4	450.5	150.7	178.7	3.5	74.7	33.5	9.6	-36.3
1979	480.7	223.1	75.8	29.1	152.7	494.7	163.4	197.8	4.0	79.1	40.6	9.8	-14.0
1980	527.3	249.7	70.6	35.7	171.3	578.2	190.2	234.7	4.6	86.7	51.2	10.8	-50.9
1981 ³	614.4	290.5	67.9	61.2	194.8	671.0	218.5	276.8	4.7	90.3	67.3	13.4	-56.6
1982 ³	728.2	339.3	78.8	83.8	226.3	746.3	248.7	308.7	5.2	94.6	75.1	14.0	-18.1
Calendar year:													
1958	78.7	36.8	18.0	11.5	12.4	88.9	53.9	19.6	1.8	5.6	5.2	2.8	-10.3
1959	89.8	39.9	22.5	12.5	14.9	91.0	53.9	20.1	1.8	6.8	6.2	2.1	-1.1
1960	96.1	43.6	21.4	13.4	17.6	93.1	53.7	21.6	1.9	6.5	6.8	2.6	3.0
1961	98.1	44.7	21.5	13.6	18.3	101.9	57.4	25.0	2.1	7.2	6.2	4.0	-3.9
1962	106.2	48.6	22.5	14.6	20.5	110.4	63.7	25.6	2.2	8.0	6.8	4.2	-4.2
1963	114.4	51.5	24.6	15.3	23.1	114.2	64.6	27.0	2.2	9.1	7.3	3.9	-3
1964	114.9	48.6	26.1	16.2	24.0	118.2	65.2	27.9	2.2	10.4	8.0	4.5	-3.3
1965	124.3	53.9	28.9	16.5	25.0	123.8	67.3	30.3	2.2	11.1	8.4	4.6	-5
1966	141.8	61.7	31.4	15.6	33.1	143.6	78.8	33.5	2.3	14.4	9.2	5.5	-1.8
1967	150.5	67.5	30.0	16.3	36.7	163.7	90.9	40.1	2.2	15.9	9.8	4.7	-13.2
1968	174.4	79.7	36.1	18.0	40.7	180.5	98.0	46.0	2.1	18.6	11.3	4.5	-6.0
1969	196.9	95.1	36.1	19.0	46.7	188.4	97.6	50.6	2.1	20.3	12.7	5.2	8.4
1970	191.9	92.6	30.6	19.3	49.3	204.3	95.7	61.3	2.2	24.4	14.1	6.5	-12.4
1971	198.6	90.3	33.5	20.4	54.4	220.6	96.2	72.7	2.6	29.0	13.8	6.3	-22.0
1972	227.5	108.2	36.6	20.0	62.7	244.3	101.7	80.5	2.7	37.5	14.4	7.9	-16.8
1973	258.6	114.7	43.3	21.2	79.5	264.2	102.0	93.3	2.6	40.6	18.0	7.8	-5.6
1974	287.8	131.3	45.1	21.7	89.8	299.3	111.0	114.5	3.2	43.9	20.7	5.5	-11.5
1975	287.3	125.8	43.6	23.9	94.1	356.6	122.7	146.3	3.1	54.6	23.1	6.9	-69.3
1976	331.8	147.3	54.6	23.4	106.5	384.8	129.2	158.8	3.2	61.1	26.8	5.8	-53.1
1977	375.1	170.1	61.6	25.0	118.5	421.5	143.9	169.6	3.2	67.5	29.1	8.2	-46.4
1978	431.5	194.9	71.2	28.1	137.2	460.7	153.4	181.8	3.8	77.3	35.2	9.3	-29.2
1979	494.4	231.4	74.6	29.4	159.0	509.2	167.9	204.9	4.2	80.4	42.3	9.4	-14.8
1980 ⁴	538.9	258.0	68.3	40.4	172.2	601.2	198.9	245.2	4.5	87.3	53.4	12.1	-62.3
1979:													
I	477.0	216.7	75.3	29.4	155.5	488.4	164.8	192.5	4.3	78.2	40.0	8.5	-11.5
II	485.9	225.7	73.5	29.4	157.4	494.0	163.6	197.5	3.9	77.8	42.0	9.2	-8.1
III	500.6	236.2	75.3	29.3	159.9	515.8	165.1	212.8	3.8	80.8	42.9	10.5	-15.2
IV	514.0	247.1	74.3	29.6	163.0	538.6	178.1	216.8	4.9	84.9	44.4	9.5	-24.5
1980:													
I	528.4	246.9	80.5	31.9	169.2	564.7	190.0	224.4	4.5	85.5	50.3	10.1	-36.3
II	520.9	252.0	60.9	38.7	169.3	587.3	198.7	232.2	3.8	87.2	54.4	11.0	-66.5
III	540.8	259.4	66.7	42.9	171.8	615.0	194.9	260.4	4.9	87.7	53.5	13.7	-74.2

¹ Includes an item for the difference between wage accruals and disbursements, not shown separately.

² Under provisions of the Congressional Budget Act of 1974, the fiscal year for the Federal Government shifted beginning with fiscal year 1977. 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.

³ Estimates.

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

TABLE B-75.—State and local government receipts and expenditures, national income and product accounts, 1946-80

(Billions of dollars; quarterly data at seasonally adjusted annual rates)

Calendar year or quarter	Receipts						Expenditures					Surplus or deficit (-), national income and product accounts
	Total	Personal tax and nontax receipts	Corporate profits tax accruals	Indirect business tax and nontax accruals	Contributions for social insurance	Federal grants-in-aid	Total ¹	Purchases of goods and services	Transfer payments to persons	Net interest paid less dividends received	Subsidies less current surplus of government enterprises	
1946.....	13.0	1.5	0.5	9.3	0.6	1.1	11.1	9.9	1.7	0.2	-0.7	1.9
1947.....	15.4	1.7	.6	10.7	.7	1.7	14.4	12.8	2.3	.1	-.8	1.0
1948.....	17.7	2.1	.7	12.2	.8	2.0	17.6	15.3	3.0	.1	-.8	.1
1949.....	19.5	2.4	.6	13.3	.9	2.2	20.2	18.0	3.0	.1	-.9	-.7
1950.....	21.3	2.5	.8	14.6	1.1	2.3	22.5	19.8	3.6	.1	-.9	-1.2
1951.....	23.4	2.8	.9	15.9	1.4	2.5	23.9	21.8	3.1	.0	-1.0	-.4
1952.....	25.4	3.0	.8	17.4	1.6	2.6	25.5	23.2	3.3	.0	-1.1	-.0
1953.....	27.4	3.2	.8	18.8	1.7	2.8	27.3	25.0	3.5	.0	-1.2	.1
1954.....	29.0	3.5	.8	19.9	2.0	2.9	30.2	27.8	3.6	.1	-1.3	-1.1
1955.....	31.7	3.9	1.0	21.6	2.1	3.1	32.9	30.6	3.8	.1	-1.5	-1.3
1956.....	35.0	4.5	1.0	23.8	2.3	3.3	35.9	33.5	3.9	.1	-1.6	-.9
1957.....	38.5	5.0	1.0	25.7	2.6	4.2	39.8	37.1	4.3	.1	-1.7	-1.4
1958.....	42.0	5.4	1.0	27.2	2.8	5.6	44.3	41.1	4.8	.1	-1.7	-2.4
1959.....	46.4	6.1	1.2	29.3	3.1	6.8	46.9	43.7	5.1	.1	-2.0	-.4
1960.....	49.9	6.7	1.2	32.0	3.4	6.5	49.8	46.5	5.4	.1	-2.2	.1
1961.....	54.0	7.4	1.3	34.4	3.7	7.2	54.4	50.8	5.8	.1	-2.3	-.4
1962.....	58.5	8.2	1.5	37.0	3.9	8.0	58.0	54.3	6.0	.1	-2.5	.5
1963.....	63.2	8.8	1.7	39.4	4.2	9.1	62.8	59.0	6.4	.1	-2.8	.5
1964.....	69.5	10.0	1.8	42.6	4.7	10.4	68.5	64.6	6.9	-.1	-2.8	1.0
1965.....	75.1	10.9	2.0	46.1	5.0	11.1	75.1	71.1	7.3	-.3	-3.0	-.0
1966.....	84.8	12.8	2.2	49.7	5.7	14.4	84.3	79.8	8.1	-.7	-3.0	.5
1967.....	93.6	14.6	2.5	54.0	6.7	15.9	94.7	89.3	9.4	-.9	-3.1	-1.1
1968.....	107.3	17.5	3.1	60.9	7.2	18.6	107.2	101.0	10.5	-1.1	-3.2	.1
1969.....	120.2	20.6	3.4	67.6	8.3	20.3	118.7	111.2	12.2	-1.4	-3.3	1.5
1970.....	135.4	23.2	3.5	75.0	9.2	24.4	133.5	124.4	14.7	-2.0	-3.6	1.9
1971.....	153.0	26.4	4.1	83.3	10.2	29.0	150.4	138.7	17.3	-1.7	-3.7	2.6
1972.....	178.3	32.8	5.0	91.5	11.5	37.5	164.8	151.4	19.3	-1.9	-4.2	13.5
1973.....	195.0	36.0	5.8	99.7	13.0	40.6	181.6	168.5	20.7	-3.3	-4.3	13.4
1974.....	211.4	39.0	6.5	107.4	14.6	43.9	204.6	193.1	20.9	-5.0	-4.4	6.8
1975.....	237.7	43.1	7.1	116.2	16.8	54.6	232.2	217.2	24.6	-5.1	-4.5	5.5
1976.....	267.8	49.6	9.3	128.3	19.5	61.1	251.2	232.9	27.6	-4.5	-4.8	16.6
1977.....	298.0	56.4	11.0	141.0	22.1	67.5	270.0	250.6	29.7	-5.2	-5.1	28.1
1978.....	327.4	63.9	11.7	149.9	24.6	77.3	298.4	279.2	32.8	-7.7	-5.7	29.0
1979.....	351.2	70.6	13.0	159.0	28.1	80.4	324.4	305.9	35.0	-10.3	-6.3	26.7
1980 ^a	382.6	80.7	11.9	171.2	31.5	87.3	355.0	335.9	38.9	-12.4	-7.4	27.6
1978:.....												
I.....	316.9	60.6	10.2	147.7	23.5	74.8	285.8	266.2	31.7	-6.6	-5.5	31.1
II.....	328.0	63.0	11.8	151.6	24.1	77.5	295.7	276.0	32.7	-7.3	-5.7	32.3
III.....	327.2	64.9	12.0	148.5	24.9	76.9	303.3	284.2	33.3	-8.0	-5.8	23.9
IV.....	337.7	67.1	13.0	152.0	25.8	79.9	309.0	290.6	33.5	-8.7	-5.9	28.7
1979:.....												
I.....	340.9	67.7	13.2	155.1	26.8	78.2	311.4	293.4	33.8	-9.4	-6.0	29.5
II.....	342.7	67.8	12.9	156.4	27.9	77.8	320.8	301.6	34.5	-9.9	-6.2	21.9
III.....	355.4	72.3	13.1	160.6	28.6	80.8	328.9	310.4	35.4	-10.6	-6.5	26.5
IV.....	365.6	74.7	12.9	163.9	29.2	84.9	336.7	318.3	36.4	-11.2	-6.7	28.9
1980:.....												
I.....	372.1	76.2	13.7	167.0	29.6	85.5	345.4	326.8	37.2	-11.8	-7.0	26.6
II.....	373.9	78.3	10.6	167.7	30.2	87.2	350.0	331.3	38.1	-12.2	-7.2	23.9
III.....	386.8	82.1	11.7	173.0	32.3	87.7	358.2	338.6	39.7	-12.7	-7.5	28.6

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-76.—State and local government revenues and expenditures, selected fiscal years, 1927-79

[Millions of dollars]

Fiscal year ¹	General revenues by source ²							General expenditures by function ³				
	Total	Property taxes	Sales and gross receipts taxes	Individual income taxes	Corporation net income taxes	Revenue from Federal Government	All other ⁴	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	9,250	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 ⁵	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 ⁵	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 ⁵	74,000	22,583	17,118	4,090	1,929	11,029	17,250	74,546	28,563	12,221	6,315	27,447
1965-66 ⁵	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 ⁵	91,197	26,047	20,530	5,826	2,227	15,370	21,197	93,350	37,919	13,932	8,218	33,281
1967-68 ⁵	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 ⁵	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 ⁵	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 ⁵	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 ⁵	166,352	42,133	37,488	15,237	4,416	31,253	35,826	166,873	64,886	19,010	21,070	61,907
1972-73 ⁵	190,214	45,283	42,047	17,994	5,425	39,256	40,210	181,227	69,714	18,615	23,582	69,316
1973-74 ⁵	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 ⁵	228,171	51,491	49,815	21,454	6,642	47,034	51,735	230,721	87,858	22,528	28,155	92,180
1975-76 ⁵	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 ⁵	285,796	62,535	60,595	29,245	9,174	62,575	61,673	274,388	102,805	23,105	35,941	112,537
1977-78 ⁵	315,960	66,422	67,596	33,176	10,738	69,592	68,436	296,983	110,758	24,609	39,140	122,476
1978-79 ⁵	343,278	64,944	74,247	36,932	12,128	75,164	79,864	327,517	119,448	28,440	41,898	137,731

¹ Fiscal years not the same for all governments. See footnote 5.² 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: licenses and other taxes and charges and miscellaneous revenues.⁴ Includes expenditures for health, hospitals, police, local fire protection, natural resources, sanitation, housing and urban renewal, local parks and recreation, general control, financial administration, interest on general debt, and unallocable expenditures.⁵ Data for fiscal year ending in the 12-month period through June 30. Data for 1963 and earlier years include local government amounts grouped in terms of fiscal years ended during the particular calendar year.

Note.—Data are not available for intervening years.

Source: Department of Commerce, Bureau of the Census.

TABLE B-77.—Interest-bearing public debt securities by kind of obligation, 1967-80

[Millions of dollars]

End of year or month	Total interest-bearing public debt securities	Marketable				Nonmarketable				
		Total	Bills	Treasury notes	Treasury bonds ¹	Total	U.S. savings bonds	Foreign government and public series ²	Government account series	Other ³
Fiscal year:										
1967.....	322,286	*210,672	58,535	49,108	97,418	111,614	51,213	1,514	56,155	2,731
1968.....	344,401	226,592	64,440	71,073	91,079	117,808	51,712	3,741	59,526	2,828
1969.....	351,729	226,107	68,356	78,946	78,805	125,623	51,711	4,070	66,790	3,051
1970.....	369,026	232,599	76,154	93,489	62,956	136,426	51,281	4,755	76,323	4,068
1971.....	396,289	245,473	86,677	104,807	53,989	150,816	53,003	9,270	82,784	5,759
1972.....	425,360	257,202	94,648	113,419	49,135	168,158	55,921	18,985	89,598	3,654
1973.....	456,353	262,971	100,061	117,840	45,071	193,382	59,418	28,524	101,738	3,701
1974.....	473,238	266,575	105,019	128,419	33,137	206,663	61,921	25,011	115,442	4,289
1975.....	532,122	315,606	128,569	150,257	36,779	216,516	65,482	23,216	124,173	3,644
1976.....	619,254	392,581	161,198	191,758	39,626	226,673	69,733	21,500	130,557	4,883
1977.....	697,629	443,508	156,091	241,692	45,724	254,121	75,411	21,799	140,113	16,797
1978.....	766,971	485,155	160,936	267,865	56,355	281,816	79,798	21,680	153,271	27,067
1979.....	819,007	506,693	161,378	274,242	71,073	312,314	80,440	28,115	176,360	27,400
1980.....	906,402	594,506	199,832	310,903	83,772	311,896	72,727	25,158	189,848	24,164
1979:										
Jan.....	789,502	496,529	162,286	272,807	61,436	292,973	80,414	30,257	155,237	27,065
Feb.....	791,249	497,976	162,416	271,372	64,189	293,273	80,459	28,150	157,637	27,027
Mar.....	792,344	500,400	165,459	270,803	64,139	291,944	80,417	28,161	153,765	29,601
Apr.....	795,434	504,585	163,730	275,311	65,544	290,849	80,426	25,416	158,178	26,829
May.....	803,816	506,867	163,076	276,123	67,668	296,949	80,430	25,158	164,552	26,809
June.....	799,863	499,343	159,890	272,066	67,387	300,520	80,460	26,807	166,274	26,981
July.....	806,508	506,994	159,938	278,257	68,799	299,514	80,524	28,015	163,882	27,094
Aug.....	812,095	509,187	160,489	277,582	71,116	302,909	80,503	27,688	167,301	27,418
Sept.....	819,007	506,693	161,378	274,242	71,073	312,314	80,440	28,115	176,360	27,400
Oct.....	825,736	515,033	161,692	280,832	72,510	310,703	80,178	28,010	175,267	27,247
Nov.....	832,730	519,573	165,100	279,723	74,751	313,157	79,669	29,164	176,992	27,331
Dec.....	843,960	530,731	172,644	283,379	74,708	313,229	79,517	28,820	177,460	27,434
1980:										
Jan.....	846,517	535,658	175,522	283,990	76,147	310,859	78,247	30,045	174,904	27,664
Feb.....	853,366	540,636	177,422	286,814	76,400	312,730	77,338	29,643	178,415	27,336
Mar.....	862,211	557,493	190,780	290,390	76,323	304,718	75,643	26,901	175,451	26,722
Apr.....	868,866	564,869	195,296	291,831	77,741	303,997	73,889	26,250	179,652	24,207
May.....	873,529	567,560	195,387	291,532	80,641	305,968	73,247	25,925	182,642	24,156
June.....	876,275	566,735	184,684	301,455	80,596	309,539	73,072	25,460	186,842	24,165
July.....	880,395	576,145	191,491	302,626	82,027	304,250	72,968	25,779	181,479	24,022
Aug.....	888,733	583,419	199,306	300,251	83,861	305,314	72,853	25,845	182,447	24,170
Sept.....	906,402	594,506	199,832	310,903	83,772	311,896	72,727	25,158	189,848	24,164
Oct.....	906,948	599,406	202,309	311,927	85,170	307,542	72,669	24,805	185,665	24,404
Nov.....	909,371	605,381	208,721	311,119	85,541	303,989	72,524	24,501	182,447	24,518

¹ Includes Treasury bonds and minor amounts of Panama Canal and postal savings bonds.² Nonmarketable certificates of indebtedness, notes, bonds, and bills in the Treasury foreign series of dollar-denominated and foreign-currency denominated issues.³ Includes depository bonds, retirement plan bonds, Rural Electrification Administration bonds, State and local bonds, and special issues held only by U.S. Government agencies and trust funds and the Federal home loan banks.⁴ Includes \$5,610 million in certificates not shown separately.

Note.—Through fiscal year 1976, the fiscal year was on a July 1-June 30 basis; beginning October 1976 (fiscal year 1977) the fiscal year is on an October 1-September 30 basis.

Source: Department of the Treasury.

TABLE B-78.—Estimated ownership of public debt securities, 1967-80

[Par values; ¹ billions of dollars]

End of year or month	Total public debt securities									
	Total ²	Held by Government accounts	Held by Federal Reserve Banks	Held by private investors						
				Total ³	Commercial banks ⁴	Mutual savings banks and insurance companies	Corporations ⁵	State and local governments ⁶	Individuals ⁷	Miscellaneous investors ^{8, 9}
Fiscal year:										
1967	322.9	71.8	46.7	204.4	55.5	13.2	11.0	23.6	70.4	30.7
1968	345.4	76.1	52.2	217.0	59.7	12.5	12.0	25.1	74.2	33.4
1969	352.9	84.8	54.1	214.0	55.3	11.6	11.1	26.4	77.3	32.3
1970	370.1	95.2	57.7	217.2	52.6	10.4	8.5	29.0	81.8	35.0
1971	397.3	102.9	65.5	228.9	61.0	10.3	7.4	25.9	75.4	49.1
1972	426.4	111.5	71.4	243.6	60.9	10.2	9.3	26.9	73.2	63.2
1973	457.3	123.4	75.0	258.9	58.8	9.6	9.8	28.8	75.9	76.0
1974	474.2	138.2	80.5	255.6	53.2	8.5	10.8	28.3	80.7	74.2
1975	533.2	145.3	84.7	303.2	69.0	10.6	13.8	31.7	86.8	91.3
1976	620.4	149.6	94.4	376.4	92.5	16.0	24.7	39.3	96.2	107.7
1977	698.8	155.5	104.7	438.6	99.8	20.5	23.4	48.2	106.5	140.2
1978	771.5	167.9	115.3	488.3	94.4	20.3	19.4	63.8	113.9	176.5
1979	826.5	187.7	115.5	523.4	90.1	19.4	24.0	67.1	115.5	207.3
1980	907.7	197.7	120.7	589.2	100.9	19.7	25.5	73.4	123.0	246.7
1979:										
Jan	790.5	167.7	101.3	521.4	89.9	19.9	22.0	64.0	115.2	210.4
Feb	792.2	170.1	103.5	518.6	91.1	20.0	22.7	63.9	116.2	204.7
Mar	796.8	166.3	110.9	519.6	92.5	20.0	23.5	65.5	116.1	202.0
Apr	796.4	170.7	108.6	517.1	92.0	19.7	24.4	65.9	116.0	199.1
May	804.8	177.0	106.2	521.5	94.2	19.6	25.2	66.2	117.0	199.3
June	804.9	178.5	109.7	516.6	93.5	19.3	26.1	66.6	113.0	198.1
July	807.5	176.2	111.4	519.8	89.8	19.5	25.4	66.5	114.1	204.5
Aug	813.1	178.6	113.0	521.5	89.0	19.6	24.7	66.6	114.6	207.0
Sept	826.5	187.7	115.5	523.4	90.1	19.7	24.0	66.5	115.5	207.5
Oct	826.8	185.7	114.6	526.5	90.4	19.7	24.3	67.1	116.0	209.0
Nov	833.8	187.1	118.1	528.6	91.5	19.5	24.6	67.2	115.4	210.4
Dec	845.1	187.1	117.5	540.5	91.5	19.4	24.9	67.4	116.1	221.2
1980:										
Jan	847.7	184.5	116.3	546.9	92.1	19.0	26.5	67.8	117.0	224.4
Feb	854.6	187.8	115.2	551.6	92.9	19.2	28.1	72.9	113.8	224.7
Mar	863.5	186.3	116.7	560.5	92.4	19.9	21.8	68.1	124.8	233.5
Apr	870.0	188.2	118.8	563.0	90.3	19.8	25.7	67.3	125.3	234.6
May	877.9	190.7	124.3	562.9	92.0	18.3	25.0	67.6	124.3	235.7
June	877.6	194.9	124.5	558.2	93.6	18.3	22.8	67.4	120.1	236.0
July	881.7	189.2	119.6	572.9	94.4	19.1	25.3	68.9	121.2	244.0
Aug	893.4	189.8	119.8	583.8	98.1	19.1	24.6	70.7	124.1	247.2
Sept	907.7	197.7	120.7	589.2	100.9	19.7	25.5	73.4	123.0	246.7
Oct	908.2	193.4	121.5	593.3	103.4	20.8	25.3	73.1	122.9	247.8

¹ U.S. savings bonds, series A-F and J, and U.S. savings notes are included at current redemption value.² As of July 31, 1974, public debt outstanding has been adjusted to exclude the notes of the International Monetary Fund to conform with the Budget presentation. This adjustment applies to the 1967-79 data in this table.³ For comparability with 1975-79 published data, published data for 1967-74 have been adjusted to exclude notes of the International Monetary Fund. These adjustments amounted to \$3.3 billion in 1967, \$2.2 billion in 1968, and \$0.8 billion in each year 1969 through 1974. These adjustments were necessary in order to add to the total public debt figures as published by the Department of the Treasury.⁴ Includes commercial banks, trust companies, and stock savings banks in the United States and Territories and island possessions; figures exclude securities held in trust departments.⁵ Exclusive of banks and insurance companies.⁶ Includes trust, sinking, and investment funds of State and local governments and their agencies, and of Territories and possessions.⁷ Includes partnerships and personal trust accounts.⁸ Includes savings and loan associations, nonprofit institutions, corporate pension trust funds, dealers and brokers, certain government deposit accounts and government-sponsored agencies, and investments of foreign balances and international accounts in the United States.

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-79.—*Maturity distribution and average length of marketable interest-bearing public debt securities held by private investors, 1967-80*

End of year or month	Amount out- standing, privately held	Maturity class					Average length	
		Within 1 year	1 to 5 years	5 to 10 years	10 to 20 years	20 years and over		
		Millions of dollars					Years	Months
Fiscal year:								
1967.....	150,321	56,561	53,584	21,057	6,153	12,968	5	1
1968.....	159,671	66,746	52,295	21,850	6,110	12,670	4	5
1969.....	156,008	69,311	50,182	18,078	6,097	12,337	4	2
1970.....	157,910	76,443	57,035	8,286	7,876	8,272	3	8
1971.....	161,863	74,803	58,557	14,503	6,357	7,645	3	6
1972.....	165,978	79,509	57,157	16,033	6,358	6,922	3	3
1973.....	167,869	84,041	54,139	16,385	8,741	4,564	3	1
1974.....	164,862	87,150	50,103	14,197	9,930	3,481	2	11
1975.....	210,382	115,677	65,852	15,385	8,857	4,611	2	8
1976.....	279,782	151,723	89,151	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
1979:								
Jan.....	382,556	184,277	133,992	33,690	15,282	15,315	3	3
Feb.....	381,797	185,602	132,434	31,299	15,195	17,267	3	5
Mar.....	380,060	186,967	129,454	31,245	15,141	17,254	3	4
Apr.....	383,315	185,725	132,538	31,235	16,578	17,239	3	4
May.....	388,001	188,018	130,576	33,572	17,326	18,508	3	6
June.....	377,649	184,113	124,443	33,359	17,271	18,462	3	6
July.....	383,102	183,277	129,462	33,555	18,617	18,390	3	6
Aug.....	384,771	182,891	130,607	32,392	18,548	20,334	3	8
Sept.....	380,530	181,883	127,574	32,279	18,489	20,304	3	7
Oct.....	389,074	182,297	134,205	32,325	19,938	20,309	3	8
Nov.....	390,439	180,676	133,276	34,319	19,866	22,302	3	10
Dec.....	402,226	190,403	133,173	36,592	19,796	22,262	3	9
1980:								
Jan.....	408,300	192,829	135,132	36,793	21,247	22,299	3	9
Feb.....	414,647	195,694	137,442	37,593	21,794	22,124	3	10
Mar.....	430,036	208,542	137,514	40,151	21,725	22,104	3	8
Apr.....	435,283	207,942	142,011	40,111	23,140	22,079	3	8
May.....	433,175	209,899	140,835	36,317	22,270	23,854	3	10
June.....	431,893	198,365	147,756	39,715	22,229	23,828	3	10
July.....	446,255	210,106	149,215	39,426	23,682	23,826	3	9
Aug.....	454,063	218,977	150,764	35,652	25,948	22,722	3	10
Sept.....	463,717	220,084	156,244	38,809	25,901	22,679	3	9
Oct.....	467,845	222,346	156,712	38,747	27,338	22,702	3	9
Nov.....	475,365	230,987	154,434	38,021	27,266	24,657	3	10

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.

CORPORATE PROFITS AND FINANCE

TABLE B-80.—Corporate profits with inventory valuation and capital consumption adjustments, 1946-80

(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	Profits after tax with inventory valuation and capital consumption adjustments		
			Total	Dividends	Undistributed profits with inventory valuation and capital consumption adjustments
1946.....	16.6	9.1	7.5	5.6	1.9
1947.....	22.3	11.3	11.0	6.3	4.7
1948.....	29.4	12.4	17.0	7.0	10.0
1949.....	27.1	10.2	16.9	7.2	9.7
1950.....	33.9	17.9	16.0	8.8	7.2
1951.....	38.7	22.6	16.1	8.5	7.6
1952.....	36.1	19.4	16.7	8.5	8.2
1953.....	36.3	20.3	16.0	8.8	7.2
1954.....	35.2	17.6	17.5	9.1	8.4
1955.....	45.5	22.0	23.4	10.3	13.1
1956.....	43.7	22.0	21.8	11.1	10.7
1957.....	43.3	21.4	21.8	11.5	10.3
1958.....	38.5	19.0	19.5	11.3	8.2
1959.....	49.6	23.6	26.0	12.2	13.8
1960.....	47.6	22.7	24.9	12.9	12.1
1961.....	48.6	22.8	25.8	13.3	12.5
1962.....	56.6	24.0	32.6	14.4	18.2
1963.....	62.1	26.2	35.9	15.5	20.4
1964.....	69.2	28.0	41.2	17.3	23.9
1965.....	80.0	30.9	49.1	19.1	30.0
1966.....	85.1	33.7	51.4	19.4	32.0
1967.....	82.4	32.5	49.9	20.2	29.7
1968.....	89.1	39.2	50.0	22.0	27.9
1969.....	85.1	39.5	45.6	22.5	23.1
1970.....	71.4	34.2	37.2	22.5	14.8
1971.....	83.2	37.5	45.7	22.9	22.8
1972.....	96.6	41.6	55.0	24.4	30.5
1973.....	108.3	49.0	59.3	27.0	32.3
1974.....	94.9	51.6	43.3	29.9	13.4
1975.....	110.5	50.6	59.9	30.8	29.1
1976.....	138.1	63.8	74.3	37.4	36.9
1977.....	164.7	72.6	92.2	39.9	52.3
1978.....	185.5	83.0	102.5	44.6	57.9
1979.....	196.8	87.6	109.2	50.2	59.1
1980 ^a	181.7	80.1	101.6	56.0	45.6
1978:					
I.....	163.6	71.2	92.4	42.3	50.1
II.....	185.2	83.3	101.9	43.5	58.4
III.....	190.5	85.0	105.4	45.4	60.0
IV.....	202.7	92.3	110.4	47.3	63.1
1979:					
I.....	201.9	88.5	113.3	49.0	64.3
II.....	196.6	86.4	110.2	49.8	60.5
III.....	199.5	88.4	111.1	50.2	60.9
IV.....	189.4	87.2	102.2	51.6	50.6
1980:					
I.....	200.2	94.2	106.0	53.9	52.1
II.....	169.3	71.5	97.8	55.7	42.1
III.....	177.9	78.5	99.5	56.7	42.8

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-81.—*Corporate profits by industry, 1929-80*

(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 Re-serve banks	Other	Total	Manufac-turing ²	Whole-sale and retail trade	Utili-ties ³	Other	
1929	10.5	10.2	1.3	0.0	1.3	8.9	5.2	1.0	1.8	0.9	0.2
1933	-1.2	-1.2	.3	.0	.3	-1.5	-.4	-.5	.0	-.7	.0
1939	6.5	6.1	.8	.0	.8	5.3	3.3	.7	1.0	.3	.3
1940	9.8	9.6	1.0	.0	.9	8.6	5.5	1.2	1.3	.6	.3
1941	15.4	15.0	1.1	.0	1.0	14.0	9.5	1.4	2.0	1.1	.4
1942	20.5	20.1	1.2	.0	1.2	18.9	11.8	2.2	3.4	1.5	.4
1943	24.5	24.1	1.3	.0	1.3	22.8	13.8	3.0	4.4	1.6	.4
1944	24.0	23.5	1.6	.1	1.6	21.9	13.2	3.2	3.9	1.6	.4
1945	19.3	18.9	1.7	.1	1.6	17.3	9.7	3.3	2.7	1.5	.3
1946	19.6	18.9	2.1	.1	2.0	16.8	9.0	3.8	1.8	2.1	.7
1947	25.9	24.9	1.7	.1	1.6	23.2	13.6	4.6	2.2	2.9	1.0
1948	33.4	32.2	2.6	.2	2.3	29.6	17.6	5.5	3.0	3.6	1.3
1949	31.1	29.9	3.1	.2	2.9	26.8	16.2	4.5	3.0	3.1	1.1
1950	37.9	36.7	3.1	.2	3.0	33.5	20.9	5.0	4.0	3.6	1.3
1951	43.3	41.5	3.6	.3	3.3	37.9	24.6	5.0	4.6	3.7	1.7
1952	40.6	38.7	4.0	.4	3.7	34.7	21.7	4.8	4.9	3.3	1.9
1953	40.2	38.4	4.5	.4	4.1	33.9	22.0	3.8	5.0	3.1	1.8
1954	38.4	36.4	4.6	.3	4.3	31.8	19.9	3.8	4.7	3.4	2.0
1955	47.5	45.1	4.8	.3	4.5	40.3	26.0	5.0	5.6	3.6	2.4
1956	46.9	44.1	5.0	.5	4.5	39.1	24.7	4.5	5.9	4.1	2.8
1957	46.6	43.5	5.2	.6	4.6	38.3	24.0	4.4	5.8	4.0	3.1
1958	41.6	39.1	5.7	.6	5.1	33.5	19.4	4.6	5.9	3.6	2.5
1959	52.3	49.6	6.8	.7	6.0	42.9	26.4	5.9	7.0	3.6	2.7
1960	49.7	46.7	7.2	1.0	6.2	39.5	23.6	4.9	7.4	3.6	3.0
1961	50.0	46.8	7.0	.8	6.3	39.8	23.3	5.0	7.8	3.7	3.2
1962	55.1	51.5	7.3	.9	6.4	44.2	26.0	5.8	8.4	3.9	3.6
1963	59.7	55.8	6.8	1.0	5.8	49.0	29.3	5.9	9.3	4.4	3.9
1964	66.0	61.8	6.9	1.1	5.8	54.9	32.3	7.5	10.0	5.1	4.2
1965	76.0	71.5	7.5	1.4	6.2	64.0	39.3	8.1	11.0	5.6	4.5
1966	80.9	76.7	8.5	1.7	6.8	68.2	41.9	8.2	11.8	6.3	4.2
1967	78.1	73.7	9.0	2.0	7.0	64.8	38.5	9.1	10.7	6.5	4.4
1968	84.9	79.7	10.4	2.5	7.9	69.3	41.2	10.4	10.8	6.9	5.2
1969	80.8	74.6	11.1	3.1	8.0	63.5	36.6	10.5	10.3	6.1	6.1
1970	68.9	62.4	12.1	3.6	8.6	50.2	26.6	9.5	8.2	5.9	6.5
1971	82.0	74.9	14.1	3.3	10.7	60.8	34.1	11.7	8.5	6.5	7.1
1972	94.0	85.3	15.3	3.4	11.9	70.0	40.7	13.4	9.0	6.9	8.6
1973	105.6	92.0	15.9	4.5	11.4	76.0	45.5	13.9	8.7	8.0	13.7
1974	96.7	80.4	15.0	5.7	9.3	65.4	39.0	12.5	6.1	7.9	16.3
1975	120.6	107.6	11.8	5.7	6.2	95.8	52.6	21.3	10.0	11.9	13.0
1976	151.6	137.4	17.1	6.0	11.1	120.3	69.2	22.4	14.5	14.2	14.3
1977	176.7	161.2	23.5	6.2	17.3	137.7	76.2	27.0	17.8	16.7	15.5
1978	199.0	179.3	29.3	7.7	21.6	150.0	85.3	24.5	20.7	19.5	19.7
1979	212.7	182.4	31.6	9.6	22.0	150.8	88.9	23.0	18.0	20.8	30.3
1980 ^p	199.2	167.5	30.0	11.7	18.3	137.5	73.6	20.5	19.6	23.7	31.7
1978:											
I.....	174.9	155.9	27.0	7.0	20.0	128.9	73.0	22.0	17.0	17.0	19.0
II.....	197.4	181.0	28.6	7.4	21.2	152.4	86.4	25.3	21.0	19.7	16.5
III.....	205.4	186.1	30.1	8.0	22.1	156.0	88.3	25.6	22.1	20.0	19.3
IV.....	218.3	194.3	31.6	8.6	23.0	162.8	93.6	25.2	22.6	21.4	24.0
1979:											
I.....	217.8	191.7	31.3	8.8	22.5	160.4	99.4	21.0	20.8	19.1	26.0
II.....	213.0	184.4	31.0	9.2	21.8	153.4	91.5	22.9	19.2	19.7	28.5
III.....	215.6	180.5	31.5	9.7	21.7	149.0	84.4	25.6	17.1	22.0	35.1
IV.....	204.5	172.9	32.6	10.5	22.1	140.3	80.2	22.6	14.9	22.6	31.7
1980:											
I.....	215.6	179.0	33.3	11.9	21.4	145.7	92.1	14.8	16.1	22.7	36.6
II.....	186.9	157.5	30.1	12.7	17.4	127.5	61.3	25.9	16.6	23.7	29.3
III.....	195.9	165.0	28.7	11.3	17.4	136.2	68.5	20.4	22.5	24.8	30.9

¹ Consists of the following industries: Banking; credit agencies other than banks; security and commodity brokers, dealers, and services; insurance carriers; regulated investment companies; small business investment companies; and real estate investment trusts.² See Table B-82 for industry detail.³ Consists of transportation, communication, and electric, gas, and sanitary services.

Note.—The industry classification is on a company basis and is based on the 1972 Standard Industrial Classification (SIC) beginning 1948, and on the 1942 SIC prior to 1948.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-82.—*Corporate profits of manufacturing industries, 1929-80*

(Billions of dollars; quarterly data at seasonally adjusted annual rates)

Year or quarter	Corporate profits with inventory valuation adjustment and without capital consumption adjustment												
	Total manufacturing	Nondurable goods					Durable goods						
		Total	Food and kindred products	Chemicals and allied products	Petroleum and coal products	Other	Total	Primary metal industries	Fabricated metal products	Machinery, except electrical	Electric and electronic equipment	Motor vehicles and equipment	Other
1929.....	5.2	2.6					2.6						
1933.....	— .4	.0					— .4						
1939.....	3.3	1.7					1.7						
1940.....	5.5	2.4					3.1						
1941.....	9.5	3.1					6.4						
1942.....	11.8	4.6					7.2						
1943.....	13.8	5.7					8.1						
1944.....	13.2	5.9					7.4						
1945.....	9.7	5.2					4.5						
1946.....	9.0	6.6	1.4	1.2	.9	3.1	2.4	0.8	0.3	0.5			0.8
1947.....	13.6	7.8	1.3	1.4	1.5	3.6	5.8	1.5	.4	1.1	0.6	1.1	1.0
1948.....	17.6	10.0	1.9	1.7	2.8	3.7	7.5	1.6	.8	1.2	.7	1.4	1.8
1949.....	16.2	8.0	1.6	1.8	1.9	2.8	8.1	1.5	.7	1.3	.8	2.1	1.8
1950.....	20.9	8.9	1.6	2.3	2.3	2.7	12.0	2.3	1.1	1.6	1.2	3.1	2.6
1951.....	24.6	11.4	1.4	2.8	2.7	4.4	13.2	3.1	1.3	2.3	1.3	2.4	2.8
1952.....	21.7	9.9	1.7	2.3	2.3	3.6	11.7	1.9	1.0	2.3	1.5	2.4	2.6
1953.....	22.0	10.1	1.8	2.2	2.8	3.3	11.9	2.5	1.0	1.9	1.4	2.6	2.6
1954.....	19.9	9.4	1.6	2.2	2.7	2.9	10.5	1.7	.9	1.7	1.2	2.1	2.9
1955.....	26.0	11.8	2.2	3.0	3.0	3.6	14.3	2.9	1.0	1.7	1.1	4.1	3.5
1956.....	24.7	11.9	1.8	2.8	3.3	4.1	12.8	3.0	1.1	2.1	1.2	2.2	3.2
1957.....	24.0	10.7	1.8	2.8	2.6	3.6	13.3	3.0	1.1	2.0	1.5	2.6	3.1
1958.....	19.4	10.0	2.1	2.5	2.1	3.3	9.3	1.9	.9	1.4	1.3	.9	2.9
1959.....	26.4	12.7	2.4	3.5	2.5	4.3	13.7	2.3	1.1	2.1	1.7	3.0	3.5
1960.....	23.6	12.0	2.2	3.1	2.5	4.2	11.6	2.0	.8	1.8	1.3	3.0	2.7
1961.....	23.3	11.9	2.3	3.2	2.2	4.1	11.4	1.6	1.0	1.9	1.3	2.5	3.1
1962.....	26.0	12.0	2.3	3.2	2.2	4.3	14.0	1.6	1.1	2.3	1.5	4.0	3.5
1963.....	29.3	13.1	2.7	3.6	2.1	4.6	16.3	2.0	1.3	2.5	1.6	4.9	4.0
1964.....	32.3	14.4	2.7	4.0	2.4	5.3	17.9	2.5	1.4	3.3	1.7	4.7	4.4
1965.....	39.3	16.3	2.8	4.6	2.9	6.0	23.0	3.1	2.0	3.9	2.7	6.2	5.1
1966.....	41.9	18.1	3.2	4.9	3.2	6.8	23.8	3.6	2.4	4.5	3.0	5.1	5.2
1967.....	38.5	17.6	3.2	4.3	3.9	6.3	20.9	2.7	2.4	4.1	2.9	3.9	4.9
1968.....	41.2	19.1	3.2	5.2	3.7	7.0	22.2	1.9	2.3	4.1	2.8	5.5	5.7
1969.....	36.6	17.7	3.0	4.5	3.2	6.9	18.9	1.4	2.0	3.7	2.3	4.7	4.9
1970.....	26.6	16.5	3.2	3.9	3.5	5.9	10.2	.8	1.1	2.9	1.2	1.2	2.9
1971.....	34.1	17.8	3.5	4.4	3.5	6.4	16.3	.7	1.5	2.9	1.9	5.0	4.3
1972.....	40.7	18.3	2.9	5.2	3.0	7.2	22.4	1.6	2.1	4.3	2.8	5.9	5.7
1973.....	45.5	21.2	2.4	6.0	5.0	7.8	24.3	2.2	2.5	4.6	3.0	5.7	6.2
1974.....	39.0	25.8	2.8	5.6	10.5	6.8	13.2	5.4	1.6	2.9	.4	.1	2.9
1975.....	52.6	33.6	8.6	6.5	9.6	8.9	18.9	2.9	3.0	4.7	2.1	1.9	4.3
1976.....	69.2	38.8	6.9	8.3	12.6	11.0	30.4	2.1	3.8	6.3	3.4	7.2	7.6
1977.....	76.2	40.2	6.7	8.0	11.8	13.7	36.0	1.3	4.5	7.6	5.4	9.2	8.0
1978.....	85.3	42.3	5.9	8.3	12.6	15.4	43.0	3.2	4.8	8.9	6.3	8.9	11.0
1979.....	88.9	49.4	6.9	8.2	18.3	16.0	39.5	4.2	5.0	8.8	6.3	4.3	10.8
1980 ^a	73.6	53.7	6.6	7.3	25.4	14.5	19.9	2.6	3.7	6.4	5.4	—5.1	6.9
1978:													
I.....	73.0	38.2	5.8	7.7	9.9	14.9	34.7	1.2	4.1	7.0	5.9	7.6	9.0
II.....	86.4	42.4	5.6	8.1	12.8	15.9	44.0	3.7	4.8	10.3	5.9	8.9	10.4
III.....	88.3	42.6	5.6	8.2	13.7	15.0	45.7	3.6	5.0	7.8	7.3	10.0	11.9
IV.....	93.6	45.9	6.7	9.4	13.9	15.9	47.7	4.2	5.4	10.3	6.0	9.1	12.8
1979:													
I.....	99.4	48.5	6.6	9.4	15.0	17.4	50.9	4.8	5.5	9.3	7.1	11.8	12.4
II.....	91.5	48.5	7.5	8.8	16.9	15.4	43.0	4.7	5.3	8.8	6.4	6.6	11.1
III.....	84.4	49.6	6.7	7.8	17.7	17.4	34.8	4.5	4.6	9.2	5.8	—3	11.1
IV.....	80.2	50.9	6.7	6.6	23.7	13.8	29.3	2.8	4.8	8.0	5.7	—8	8.8
1980:													
I.....	92.1	64.0	8.2	8.8	31.0	16.0	28.1	5.9	5.2	7.3	6.6	—2.9	6.0
II.....	61.3	51.2	6.7	6.0	25.3	13.2	10.1	2.0	1.7	5.7	3.8	—8.8	5.6
III.....	68.5	49.1	5.7	7.0	22.2	14.2	19.4	.7	3.9	6.2	5.5	—4.8	8.0

Note.—The industry classification is on a company basis and is based on the 1972 Standard Industrial Classification (SIC) beginning 1948, and on the 1942 SIC prior to 1948.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-83.—Sales, profits, and stockholders' equity, all manufacturing corporations, 1950-80

(Billions of dollars)

Year or quarter	All manufacturing corporations				Durable goods industries				Nondurable goods industries			
	Sales (net)	Profits		Stock- holders' equity ^a	Sales (net)	Profits		Stock- holders' equity ^a	Sales (net)	Profits		Stock- holders' equity ^a
		Before income taxes ¹	After income taxes			Before income taxes ¹	After income taxes			Before income taxes ¹	After income taxes	
1950.....	181.9	23.2	12.9	83.3	86.8	12.9	6.7	39.9	95.1	10.3	6.1	43.5
1951.....	245.0	27.4	11.9	98.3	116.8	15.4	6.1	47.2	128.1	12.1	5.7	51.1
1952.....	250.2	22.9	10.7	103.7	122.0	12.9	5.5	49.8	128.0	10.0	5.2	53.9
1953.....	265.9	24.4	11.3	108.2	137.9	14.0	5.8	52.4	128.0	10.4	5.5	55.7
1954.....	248.5	20.9	11.2	113.1	122.8	11.4	5.6	54.9	125.7	9.6	5.6	58.2
1955.....	278.4	28.6	15.1	120.1	142.1	16.5	8.1	58.8	136.3	12.1	7.0	61.3
1956.....	307.3	29.8	16.2	131.6	159.5	16.5	8.3	65.2	147.8	13.2	7.8	66.4
1957.....	320.0	28.2	15.4	141.1	166.0	15.8	7.9	70.5	154.1	12.4	7.5	70.6
1958.....	305.3	22.7	12.7	147.4	148.6	11.4	5.8	72.8	156.7	11.3	6.9	74.6
1959.....	338.0	29.7	16.3	157.1	169.4	15.8	8.1	77.9	168.5	13.9	8.3	79.2
1960.....	345.7	27.5	15.2	165.4	173.9	14.0	7.0	82.3	171.8	13.5	8.2	83.1
1961.....	356.4	27.5	15.3	172.6	175.2	13.6	6.9	84.9	181.2	13.9	8.5	87.7
1962.....	389.9	31.9	17.7	181.4	195.5	16.7	8.6	89.1	194.4	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.....	751.4	53.2	31.3	320.9	382.5	26.5	14.5	160.6	368.9	26.7	16.7	160.3
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	539.4	760.7	69.6	41.8	261.5	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
1977:												
I.....	311.5	25.6	15.6	479.8	151.2	12.5	7.5	230.8	160.3	13.0	8.1	249.1
II.....	338.6	32.4	19.7	492.9	169.5	16.9	10.2	238.4	169.1	15.5	9.5	254.5
III.....	331.7	27.3	16.7	502.4	163.8	13.0	7.8	243.1	167.9	14.3	8.9	259.3
IV.....	346.2	29.9	18.4	511.7	172.7	15.5	9.4	247.5	173.5	14.3	9.0	264.2
1978:												
I.....	340.3	26.9	16.0	518.7	170.1	13.6	7.9	250.3	170.3	13.3	8.1	268.4
II.....	377.5	36.0	22.1	531.8	195.0	19.8	12.0	257.6	182.4	16.2	10.1	274.2
III.....	376.9	33.4	20.4	546.3	189.7	17.0	10.3	265.2	187.2	16.4	10.1	281.1
IV.....	401.8	36.3	22.6	560.8	205.9	19.1	11.6	272.9	195.9	17.1	11.0	287.8
1979:												
I.....	406.6	36.5	22.7	576.2	207.5	18.8	11.4	281.9	199.1	17.7	11.2	294.3
II.....	436.4	42.6	26.8	592.5	222.6	21.6	13.3	289.3	213.8	21.1	13.5	303.2
III.....	437.5	38.2	24.7	609.2	213.6	16.4	10.3	296.5	223.9	21.9	14.4	312.6
IV.....	461.2	36.8	24.5	624.0	221.9	15.7	10.1	302.1	239.3	21.2	14.4	321.9
1980:												
I.....	465.0	39.4	24.7	640.0	219.9	15.8	9.7	307.5	245.1	23.6	15.0	332.5
II.....	465.7	35.9	22.4	654.2	218.8	13.5	8.2	312.1	246.9	22.3	14.1	342.0
III.....	463.7	33.1	21.0	666.6	212.8	11.9	7.3	316.8	250.9	21.2	13.7	349.9

¹ In the old series, "income taxes" refers to Federal income taxes only, as State and local income taxes had already been deducted. In the new series, no income taxes have been deducted.

² Annual data are average equity for the year (using four end-of-quarter figures).

Note.—Data are not necessarily comparable from one period to another due to changes in accounting procedures, industry classifications, sampling procedures, etc. For explanatory notes concerning compilation of the series, see "Quarterly Financial Report for Manufacturing, Mining, and Trade Corporations," Federal Trade Commission.

Source: Federal Trade Commission.

TABLE B-84.—*Relation of profits after taxes to stockholders' equity and to sales, all manufacturing corporations, 1947-80*

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	4.8	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
1977:						
I.....	13.0	13.0	13.0	5.0	5.0	5.0
II.....	16.0	17.1	15.0	5.8	6.0	5.6
III.....	13.3	12.9	13.7	5.0	4.8	5.3
IV.....	14.4	15.1	13.7	5.3	5.4	5.2
1978:						
I.....	12.4	12.7	12.1	4.7	4.7	4.8
II.....	16.7	18.7	14.8	5.9	6.2	5.6
III.....	14.9	15.5	14.4	5.4	5.4	5.4
IV.....	16.1	17.0	15.3	5.6	5.6	5.6
1979:						
I.....	15.7	16.2	15.3	5.6	5.5	5.6
II.....	18.1	18.4	17.8	6.1	6.0	6.3
III.....	16.3	14.0	18.4	5.7	4.8	6.4
IV.....	15.7	13.4	17.9	5.3	4.6	6.0
1980:						
I.....	15.4	12.6	18.1	5.3	4.4	6.1
II.....	13.7	10.6	16.5	4.8	3.8	5.7
III.....	12.6	9.2	15.7	4.5	3.4	5.5

¹ Annual ratios based on average equity for the year (using four end-of-quarter figures). Quarterly ratios based on equity at end of quarter only.

Note.—Based on data in millions of dollars.

See Note, Table B-83.

Source: Federal Trade Commission.

TABLE B-85.—*Relation of profits after taxes to stockholders' equity and to sales, all manufacturing corporations, by industry group, 1979-80*

Industry	Ratio of profits after income taxes (annual rate) to stockholders' equity—percent ¹					Profits after income taxes per dollar of sales—cents				
	1979		1980			1979		1980		
	III	IV	I	II	III	III	IV	I	II	III
All manufacturing corporations.....	16.3	15.7	15.4	13.7	12.6	5.7	5.3	5.3	4.8	4.5
Durable goods industries.....	14.0	13.4	12.6	10.6	9.2	4.8	4.6	4.4	3.8	3.4
Stone, clay, and glass products..	19.4	13.9	5.9	11.5	14.4	6.8	5.2	2.5	4.6	5.4
Primary metals industries.....	13.3	5.7	16.8	11.8	5.6	4.4	1.9	5.4	4.2	2.1
Iron and steel.....	11.7	-2.3	12.8	8.2	3.4	3.7	-7	3.9	2.7	1.2
Nonferrous metals.....	15.8	18.2	22.9	17.1	8.7	6.0	6.7	7.9	6.7	3.6
Fabricated metal products.....	15.8	15.4	16.6	13.3	12.3	4.5	4.4	5.0	4.0	3.8
Machinery, except electrical.....	16.0	17.2	14.1	15.6	13.9	6.8	7.2	6.0	6.6	6.3
Electrical and electronic equipment.....	16.4	17.6	16.0	14.8	14.2	5.3	5.5	5.1	4.8	4.8
Transportation equipment ²	5.2	7.9	3.8	-3.6	-6.2	1.7	2.5	1.2	-1.2	-2.1
Motor vehicles and equipment.....	-5	3.5	-2.2	-14.1	-18.1	-2	1.2	-8	-5.2	-6.9
Aircraft, guided missiles, and parts.....	17.9	18.3	16.5	16.5	15.4	5.1	5.0	4.5	4.3	4.3
Instruments and related products.....	16.2	17.0	16.2	17.3	17.6	8.4	8.7	8.5	8.9	9.1
Other durable manufacturing products.....	19.7	15.7	12.5	9.0	12.2	5.2	4.1	3.6	2.7	3.6
Nondurable goods industries.....	18.4	17.9	18.1	16.5	15.7	6.4	6.0	6.1	5.7	5.5
Food and kindred products.....	17.2	13.8	12.8	13.4	15.1	3.9	3.1	3.0	3.1	3.4
Tobacco manufactures.....	21.6	18.4	21.2	20.2	22.3	13.1	10.8	13.1	12.1	13.0
Textile mill products.....	13.4	12.5	10.9	7.9	6.7	3.7	3.2	2.8	2.0	1.8
Paper and allied products.....	20.5	13.4	13.3	13.1	10.8	8.2	5.4	5.4	5.5	4.6
Printing and publishing.....	20.1	16.8	15.0	16.5	17.3	6.8	5.5	5.2	5.6	5.8
Chemicals and allied products ²	15.9	15.3	18.0	15.3	15.0	7.2	7.0	8.0	7.1	7.1
Industrial chemicals and synthetics.....	13.3	13.6	16.1	12.3	9.6	5.9	6.1	6.8	5.7	4.7
Drugs.....	18.4	17.9	21.6	18.3	22.6	12.4	11.9	14.0	12.4	15.1
Petroleum and coal products.....	21.1	24.6	24.3	21.5	18.2	9.0	9.5	9.0	8.4	7.2
Rubber and miscellaneous plastics products.....	8.8	5.6	7.7	5.6	6.2	2.7	1.7	2.4	1.8	2.0
Other nondurable manufacturing products.....	19.0	14.3	10.5	10.3	16.0	3.7	2.8	2.2	2.2	3.1

¹ Ratios based on equity at end of quarter.

² Includes other industries not shown separately.

Source: Federal Trade Commission.

TABLE B-86.—*Determinants of business fixed investment, 1955-80*

[Percent, except as noted]

Year	Real investment as percent of real GNP	Capacity utilization rate in manufacturing ¹	Nonfinancial corporations			
			Cash flow as percent of GNP ²	Rate of return on depreciable assets ³	Rate of return on stockholders' equity ⁴	Ratio of market value to replacement cost of net assets ⁵
1955.....	9.3	87.1	9.3	14.3	6.2	0.855
1956.....	9.7	86.4	8.9	12.2	5.5	.837
1957.....	9.7	83.7	8.9	11.1	5.0	.775
1958.....	8.7	75.2	8.6	9.5	3.9	.810
1959.....	8.8	81.9	9.3	12.2	4.9	.977
1960.....	9.1	80.2	8.9	11.1	5.0	.954
1961.....	8.8	77.4	8.8	11.2	4.4	1.055
1962.....	9.0	81.6	9.5	12.9	5.9	.998
1963.....	9.0	83.5	9.7	13.8	6.4	1.096
1964.....	9.4	85.6	10.1	14.7	7.6	1.174
1965.....	10.5	89.6	10.6	16.1	9.3	1.247
1966.....	11.0	91.1	10.4	15.8	9.1	1.126
1967.....	10.4	86.9	10.0	14.0	8.0	1.138
1968.....	10.3	87.1	9.4	13.8	7.8	1.174
1969.....	10.7	86.2	8.6	12.1	7.2	1.053
1970.....	10.5	79.3	7.8	9.5	4.6	.861
1971.....	10.0	78.4	8.3	10.1	5.4	.939
1972.....	10.2	83.5	8.6	10.7	6.7	1.011
1973.....	11.0	87.6	8.0	10.6	9.3	.932
1974.....	10.9	83.8	7.0	8.1	8.7	.666
1975.....	9.7	72.9	9.0	8.8	5.4	.658
1976.....	9.7	79.5	9.3	9.6	4.9	.743
1977.....	10.3	81.9	9.6	10.1	6.3	.656
1978.....	10.7	84.4	9.3	9.9	7.1	.606
1979.....	11.0	85.7	8.9	9.0	7.8	.561
1980 ⁶	10.7	(⁶)	8.7	(⁶)	(⁶)	(⁶)

¹ Federal Reserve Board index.² Cash flow calculated as after-tax profits plus capital consumption allowance plus inventory valuation adjustment.³ Profits before taxes plus capital consumption adjustment and inventory valuation adjustment plus net interest paid divided by the stock of depreciable assets valued at current replacement cost. Data for the inventory component of depreciable assets do not reflect national income and product accounts benchmark revisions.⁴ After-tax profits corrected for inflation effects divided by net worth (physical capital component valued at current replacement cost). Data do not reflect national income and product accounts benchmark revisions.⁵ Equity plus interest-bearing debt divided by current replacement cost of net assets. Data for the inventory component of depreciable assets do not reflect national income and product accounts benchmark revisions.⁶ Not available.

Sources: Department of Commerce (Bureau of Economic Analysis), Board of Governors of the Federal Reserve System, and Council of Economic Advisers.

TABLE B-87.—*Sources and uses of funds, nonfarm nonfinancial corporate business, 1946–80*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Year or quarter	Sources							Uses			Discrepancy (sources less uses)
	Total	Internal ¹	External					Total	Purchase of physical assets ²	Increase in financial assets	
			Total	Credit market funds			Other ³				
				Total	Securities and mortgages	Loans and short-term paper					
1946.....	18.4	7.8	10.6	6.9	3.6	3.3	3.7	17.1	18.5	-1.4	1.3
1947.....	26.7	12.6	14.1	8.3	5.4	3.0	5.8	25.3	17.0	8.4	1.4
1948.....	28.5	18.8	9.8	6.5	6.7	-2	3.3	24.9	19.9	5.0	3.6
1949.....	19.7	19.3	.4	3.1	4.9	-1.8	-2.7	17.9	14.4	3.5	1.9
1950.....	41.8	17.8	24.0	8.1	4.2	3.9	15.9	39.9	23.6	16.4	1.9
1951.....	35.9	19.7	16.2	10.5	6.4	4.1	5.7	37.2	29.8	7.4	-1.3
1952.....	29.2	21.2	8.0	9.5	8.0	1.5	-1.5	29.1	24.5	4.6	1.1
1953.....	27.3	21.1	6.1	5.6	6.0	-4	5	27.7	25.4	2.3	-5
1954.....	29.1	23.5	5.6	6.5	6.7	-2	-8	27.7	22.8	4.9	1.4
1955.....	52.0	28.8	23.2	10.2	6.4	3.7	13.1	49.2	32.7	16.5	2.8
1956.....	44.0	28.7	15.3	12.8	7.5	5.3	2.5	41.1	37.1	4.0	2.9
1957.....	42.2	30.4	11.8	12.2	10.4	1.9	-4	39.4	35.2	4.2	2.9
1958.....	41.3	29.6	11.7	10.5	10.5	-0	1.2	38.7	27.9	10.8	2.5
1959.....	55.2	35.0	20.1	12.2	8.1	4.1	7.9	51.7	37.5	14.2	3.5
1960.....	47.6	34.7	12.9	11.9	7.5	4.5	1.0	40.6	38.0	2.7	7.0
1961.....	54.5	35.3	19.2	12.5	10.8	1.8	6.7	50.4	37.2	13.2	4.1
1962.....	58.8	41.6	17.2	12.8	9.4	3.5	4.3	54.9	43.8	11.1	3.9
1963.....	66.0	44.5	21.5	12.2	8.4	3.8	9.3	59.1	44.9	14.2	6.9
1964.....	72.6	50.1	22.5	14.8	8.8	5.9	7.7	64.1	50.7	13.4	8.5
1965.....	91.1	56.1	35.1	20.6	9.3	11.4	14.4	82.2	62.0	20.2	9.0
1966.....	96.8	60.5	36.3	25.4	15.9	9.5	10.9	90.5	75.7	14.8	6.3
1967.....	93.9	61.3	32.7	29.8	21.6	8.2	2.9	87.5	73.0	14.5	6.4
1968.....	114.6	62.3	52.2	31.8	18.8	13.0	20.4	105.3	77.2	28.2	9.2
1969.....	118.6	61.7	57.0	38.6	20.7	17.9	18.4	113.1	84.3	28.8	5.6
1970.....	104.4	58.9	45.5	40.7	32.1	8.5	4.9	95.9	80.3	15.6	8.5
1971.....	127.8	68.6	59.3	45.2	41.1	4.1	14.1	119.6	86.0	33.5	8.2
1972.....	161.6	80.8	80.8	58.2	40.6	17.6	22.6	145.8	100.3	45.6	15.8
1973.....	200.0	83.8	116.2	73.0	37.0	36.1	43.1	185.6	123.3	62.3	14.4
1974.....	191.3	75.7	115.6	82.1	39.1	43.0	33.4	179.0	134.7	44.4	12.2
1975.....	150.0	106.8	43.2	37.9	49.3	-11.4	5.3	133.0	99.9	33.2	16.9
1976.....	209.7	125.3	84.4	60.7	48.8	11.9	23.8	183.3	139.0	44.3	26.4
1977.....	242.3	139.9	102.3	79.9	46.1	33.8	22.4	216.8	169.9	46.9	25.5
1978.....	295.7	148.8	146.9	94.7	49.2	45.6	52.2	274.3	195.9	78.3	21.4
1979.....	341.3	158.3	183.0	114.3	52.4	61.9	68.7	319.4	221.3	98.2	21.9
1978:											
I.....	259.6	135.0	124.5	94.7	31.9	62.8	29.8	232.5	177.0	55.5	27.0
II.....	297.7	150.5	147.2	92.7	54.8	38.0	54.5	281.3	203.2	78.1	16.4
III.....	303.5	153.8	149.7	90.4	55.1	35.3	59.3	284.4	199.9	84.4	19.1
IV.....	322.1	155.9	166.2	101.1	55.0	46.2	65.1	298.9	203.6	95.2	23.2
1979:											
I.....	350.2	154.4	195.8	113.4	48.9	64.5	82.4	324.8	213.0	111.8	25.5
II.....	323.3	159.0	164.3	123.9	55.2	68.7	40.4	294.6	228.6	66.1	28.7
III.....	377.3	161.6	215.7	126.7	56.2	70.5	89.0	360.5	226.6	133.9	16.8
IV.....	314.9	158.2	156.7	93.0	49.2	43.8	63.7	298.3	216.9	81.4	16.6
1980:											
I.....	315.4	153.7	161.7	123.8	56.2	67.7	37.9	294.9	226.0	68.9	20.6
II.....	204.9	160.1	44.9	64.3	59.1	5.2	-19.4	190.0	220.0	-30.0	14.9
III.....	258.7	165.7	93.1	102.0	61.8	40.3	-9.0	240.7	209.1	31.6	18.0

¹ Undistributed profits (after inventory valuation and capital consumption adjustments), capital consumption allowances, and foreign branch profits.

² Consists of tax liabilities, trade debt, and miscellaneous liabilities.

³ Plant and equipment, residential structures, inventory investment, and mineral rights from U.S. Government.

Source: Board of Governors of the Federal Reserve System.

TABLE B-88.—Current assets and liabilities of U.S. corporations, 1939-80

(Billions of dollars)

End of year or quarter	Current assets						Current liabilities			Net working capital	Current ratio ^a
	Total	Cash ¹	U.S. Government securities ²	Notes and accounts receiv- able	Inven- tories	Other current assets	Total	Notes and accounts payable	Other current liabi- lities		
All corporations ^a											
SEC series: ^a											
1939	54.5	10.8	2.2	22.1	18.0	1.4	30.0	21.9	8.1	24.5	1.817
1940	60.3	13.1	2.0	24.0	19.8	1.5	32.8	23.2	9.6	27.5	1.838
1941	72.9	13.9	4.0	28.0	25.6	1.4	40.7	26.4	14.3	32.3	1.791
1942	83.6	17.6	10.1	27.3	27.3	1.3	47.3	26.0	21.3	36.3	1.767
1943	93.8	21.6	16.4	26.9	27.6	1.3	51.6	26.3	25.3	42.1	1.818
1944	97.2	21.6	20.9	26.5	26.8	1.4	51.7	26.8	24.9	45.6	1.880
1945	97.4	21.7	21.1	25.9	26.3	2.4	45.8	25.7	20.1	51.6	2.127
1946	108.1	22.8	15.3	30.7	37.6	1.7	51.9	31.6	20.3	56.2	2.083
1947	123.6	25.0	14.1	38.3	44.6	1.6	61.5	37.6	23.9	62.1	2.010
1948	133.0	25.3	14.8	42.4	48.9	1.6	64.4	39.3	25.0	68.6	2.065
1949	133.1	26.5	16.8	43.0	45.3	1.4	60.7	37.5	23.3	72.4	2.193
1950	161.5	28.1	19.7	56.8	55.1	1.7	79.8	48.3	31.6	81.6	2.024
1951	179.1	30.0	20.7	61.5	64.9	2.1	92.6	54.9	37.8	86.5	1.934
1952	186.2	30.8	19.9	67.4	65.8	2.4	96.1	59.3	36.8	90.1	1.938
1953	190.6	31.1	21.5	68.5	67.2	2.4	98.9	59.5	39.4	91.8	1.927
1954	194.6	33.4	19.2	73.6	65.3	3.1	99.7	61.7	38.0	94.9	1.952
1955	224.0	34.6	23.5	88.9	72.8	4.2	121.0	76.1	45.0	103.0	1.851
1956	237.9	34.8	19.1	97.7	80.4	5.9	130.5	83.9	46.6	107.4	1.823
1957	244.7	34.9	18.6	102.2	82.2	6.7	133.1	86.6	46.5	111.6	1.838
1958	255.3	37.4	18.8	109.7	81.9	7.5	136.6	90.4	46.2	118.7	1.869
1959	277.3	36.3	22.8	120.6	88.4	9.1	153.1	101.0	52.0	124.2	1.811
1960	289.0	37.2	20.1	129.2	91.8	10.6	160.4	106.8	53.6	128.6	1.802
1961	306.8	41.1	20.0	139.2	95.2	11.4	171.2	114.6	56.6	135.6	1.792
Nonfinancial corporations ^a											
SEC series: ^a											
1961	254.7	34.8	16.5	97.9	95.0	10.5	123.7	84.4	39.3	131.0	2.059
1962	269.7	37.1	16.8	103.2	100.5	12.1	132.4	88.7	43.7	137.3	2.037
1963	288.2	39.8	16.7	110.5	106.8	14.4	145.5	97.0	48.5	142.7	1.981
1964	305.6	40.5	15.8	119.9	113.1	16.3	156.6	104.9	51.7	149.0	1.951
1965	336.0	42.8	14.4	134.1	126.6	18.1	178.8	121.5	57.3	157.2	1.879
1966	364.0	41.9	13.0	146.6	142.8	19.7	199.4	137.5	61.9	164.6	1.825
1967	386.2	45.5	10.3	155.3	153.1	22.0	211.3	147.1	64.2	174.9	1.828
1968	426.5	48.2	11.5	173.9	166.0	26.9	244.1	168.8	75.3	182.4	1.747
1969	473.6	47.9	10.6	197.0	186.4	31.6	287.8	199.2	88.6	185.7	1.646
1970	492.3	50.2	7.7	206.1	193.3	35.0	304.9	211.3	93.6	187.4	1.615
1971	529.6	53.3	11.0	221.1	200.4	43.8	326.0	220.5	105.5	203.6	1.625
1972	599.3	59.0	10.6	248.2	225.7	55.8	375.6	282.9	92.7	223.7	1.595
1973	697.8	66.3	12.8	288.5	263.9	66.4	450.9	340.3	110.7	246.9	1.548
1974	790.7	71.1	12.3	322.1	313.6	71.7	530.4	402.3	128.1	260.3	1.491
FTC-FRB series: ⁷											
1974	735.4	73.2	11.1	265.8	319.5	65.9	453.4	269.8	183.6	282.0	1.622
1975	759.0	82.1	19.0	272.1	315.9	69.9	451.6	264.2	187.4	307.4	1.681
1976	826.8	88.2	23.4	292.8	342.4	80.1	494.7	281.9	212.8	332.2	1.672
1977	902.1	95.8	17.6	324.7	374.8	89.2	549.4	313.2	236.2	352.7	1.642
1978	1,030.0	104.5	16.3	383.8	426.9	98.5	665.5	373.7	291.7	364.6	1.548
1979	1,200.9	116.1	15.6	456.8	501.7	110.8	809.1	456.3	352.8	391.8	1.484
1979:											
I	1,081.0	102.7	17.4	408.1	451.4	101.4	705.4	391.3	314.1	375.6	1.532
II	1,108.2	100.1	18.6	421.1	465.2	103.2	724.7	406.4	318.3	383.5	1.529
III	1,169.5	103.7	15.8	453.0	489.4	107.7	777.8	438.8	339.0	391.7	1.504
IV	1,200.9	116.1	15.6	456.8	501.7	110.8	809.1	456.3	352.8	391.8	1.484
1980:											
I	1,235.2	110.2	15.1	471.2	519.5	119.3	838.3	467.9	370.4	397.0	1.474
II	1,233.8	111.4	13.9	464.2	525.7	118.7	828.1	463.1	364.9	405.7	1.490

¹ Includes time certificates of deposit.² Includes Federal agency issues.³ Total current assets divided by total current liabilities.⁴ Excludes banks, savings and loan associations, and insurance companies.⁵ Based on data from "Statistics of Income," Department of the Treasury.⁶ Excludes banks, savings and loan associations, insurance companies, investment companies, finance companies (personal and commercial), real estate companies, and security and commodity brokers, dealers, and exchanges.⁷ Based on data from "Quarterly Financial Report for Manufacturing, Mining, and Trade Corporations," Federal Trade Commission. See "Federal Reserve Bulletin," July 1978, for details regarding the series.

Note.—SEC series not available after 1974.

Sources: Board of Governors of the Federal Reserve System, Federal Trade Commission, and Securities and Exchange Commission.

TABLE B-89.—State and municipal and corporate securities offered, 1934-80

[Millions of dollars]

Year or quarter	State and municipal securities offered for cash (principal amounts)	Corporate securities offered for cash								
		Total corporate offerings	Type of corporate security			Industry of corporate issuer				
			Common stock	Preferred stock	Bonds and notes	Manufacturing ¹	Electric, gas, and water ²	Transportation ³	Communication	Other
1934.....	939	397	19	6	372	67	133	176		21
1939.....	1,128	2,164	87	98	1,979	604	1,271	186		103
1940.....	1,238	2,677	108	183	2,386	992	1,203	324		159
1941.....	956	2,667	110	167	2,389	848	1,357	366		96
1942.....	524	1,062	34	112	917	539	472	48		4
1943.....	435	1,170	56	124	990	510	477	161		21
1944.....	661	3,202	163	369	2,670	1,061	1,422	609		109
1945.....	795	6,011	397	758	4,855	2,026	2,319	1,454		211
1946.....	1,157	6,900	891	1,127	4,882	3,701	2,158	711		329
1947.....	2,324	6,577	779	762	5,036	2,742	3,257	286		293
1948.....	2,690	7,078	614	492	5,973	2,226	2,187	755	902	1,008
1949.....	2,907	6,052	736	425	4,890	1,414	2,320	800	571	946
1950.....	3,532	6,362	811	631	4,920	1,200	2,649	813	399	1,300
1951.....	3,189	7,741	1,212	838	5,691	3,122	2,455	494	612	1,058
1952.....	4,401	9,534	1,369	564	7,601	4,039	2,675	992	760	1,068
1953.....	5,558	8,898	1,326	489	7,083	2,254	3,029	595	882	2,138
1954.....	6,969	9,516	1,213	816	7,488	2,268	3,713	778	720	2,037
1955.....	5,977	10,240	2,185	635	7,420	2,994	2,464	893	1,132	2,757
1956.....	5,446	10,939	2,301	636	8,002	3,647	2,529	724	1,419	2,619
1957.....	6,958	12,884	2,516	411	9,957	4,234	3,938	824	1,462	2,426
1958.....	7,449	11,558	1,334	571	9,653	3,515	3,804	824	1,424	1,991
1959.....	7,681	9,748	2,027	531	7,190	2,073	3,258	967	717	2,733
1960.....	7,230	10,154	1,664	409	8,081	2,152	2,851	718	1,050	3,383
1961.....	8,360	13,165	3,294	450	9,420	4,077	3,032	694	1,834	3,527
1962.....	8,558	10,705	1,314	422	8,969	3,249	2,825	567	1,303	2,761
1963.....	10,107	12,211	1,011	343	10,856	3,514	2,677	957	1,105	3,957
1964.....	10,544	13,957	2,679	412	10,865	3,046	2,760	982	2,189	4,980
1965.....	11,148	14,782	1,473	724	12,585	5,414	2,934	702	945	4,787
1966.....	11,089	17,385	1,901	580	14,904	7,056	3,666	1,494	2,003	3,167
1967.....	14,288	24,014	1,927	881	21,206	11,069	4,935	1,639	1,975	4,396
1968.....	16,374	21,261	3,885	636	16,740	6,958	5,293	1,564	1,775	5,671
1969.....	11,460	25,997	7,640	691	17,666	6,346	6,715	1,779	2,172	8,985
1970.....	17,762	37,451	7,037	1,390	29,023	10,647	11,009	1,253	5,291	9,252
1971.....	24,370	43,229	9,485	3,683	30,061	11,651	11,721	1,148	5,840	12,867
1972.....	22,941	39,705	10,707	3,371	25,628	6,398	11,314	860	4,836	16,298
1973.....	22,953	31,680	7,642	3,341	20,700	4,832	10,269	811	4,872	10,897
1974.....	22,824	37,820	4,050	2,273	31,497	10,511	12,836	1,005	3,932	9,632
1975.....	29,326	53,632	7,414	3,459	42,759	18,652	15,893	3,637	4,466	10,983
1976.....	33,845	53,314	8,305	2,803	42,206	15,496	14,418	4,649	3,562	15,194
1977.....	45,060	54,229	8,047	3,916	42,266	13,757	13,704	3,218	4,443	19,113
1978.....	46,215	48,212	7,937	2,832	37,443	11,062	12,253	2,696	3,640	18,565
1979.....	42,261	53,015	8,709	3,525	40,781	11,552	13,687	3,294	4,694	19,797
1980: First 3 quarters	36,089	61,602	12,670	2,614	46,318	19,709	12,860	2,884	5,431	20,719
1979:										
I.....	9,722	12,038	1,910	556	9,572	2,096	3,287	720	1,569	4,365
II.....	10,526	15,104	1,447	611	13,046	3,300	3,346	895	779	6,788
III.....	9,872	13,662	2,250	1,438	9,974	3,659	3,057	899	1,103	4,946
IV.....	12,142	12,211	3,102	920	8,189	2,497	3,997	780	1,243	3,697
1980:										
I.....	7,836	17,721	5,354	910	11,457	6,548	4,716	890	1,278	4,289
II.....	15,361	25,097	3,462	807	20,828	7,110	4,176	840	2,142	10,830
III.....	12,892	18,784	3,854	897	14,033	6,051	3,968	1,154	2,011	5,600

¹ Prior to 1948, also includes extractive, radio broadcasting, airline companies, commercial, and miscellaneous company issues.² Prior to 1948, also includes telephone, street railway, and bus company issues.³ Prior to 1948, includes railroad issues only.

Note.—Covers substantially all new issues of State, municipal, and corporate securities offered for cash sale in the United States in amounts over \$100,000 and with terms to maturity of more than 1 year; excludes notes issued exclusively to commercial banks, intercorporate transactions, and issues to be sold over an extended period, such as employee-purchase plans. Closed-end investment company issues are included beginning 1973.

Sources: Securities and Exchange Commission, "The Commercial and Financial Chronicle" and "The Bond Buyer."

TABLE B-90.—Common stock prices and yields, 1949-80

Year or month	Common stock prices ¹						Common stock yields (percent) ⁵		
	New York Stock Exchange indexes (Dec. 31, 1965=50) ²					Dow-Jones industrial average ³	Standard & Poor's composite index (1941-43=10) ⁴	Dividend-price ratio ⁶	Earnings-price ratio ⁷
	Composite	Industrial	Transportation	Utility	Finance				
1949.....	9.02					179.48	15.23	6.59	15.48
1950.....	10.87					216.31	18.40	6.57	13.99
1951.....	13.08					257.64	22.34	6.13	11.82
1952.....	13.81					270.76	24.50	5.80	9.47
1953.....	13.67					275.97	24.73	5.80	10.26
1954.....	16.19					333.94	29.69	4.95	8.57
1955.....	21.54					442.72	40.49	4.08	7.95
1956.....	24.40					493.01	46.62	4.09	7.55
1957.....	23.67					475.71	44.38	4.35	7.89
1958.....	24.56					491.66	46.24	3.97	6.23
1959.....	30.73					632.12	57.38	3.23	5.78
1960.....	30.01					618.04	55.85	3.47	5.90
1961.....	35.37					691.55	66.27	2.98	4.62
1962.....	33.49					639.76	62.38	3.37	5.82
1963.....	37.51					714.81	69.87	3.17	5.50
1964.....	43.76					834.05	81.37	3.01	5.32
1965.....	47.39					910.88	88.17	3.00	5.59
1966.....	46.15	46.18	50.26	45.41	44.45	873.60	85.26	3.40	6.63
1967.....	50.77	51.97	53.51	45.43	49.82	879.12	91.93	3.20	5.73
1968.....	55.37	58.00	50.58	44.19	65.85	906.00	98.70	3.07	5.67
1969.....	54.67	57.44	46.96	42.80	70.49	876.72	97.84	3.24	6.08
1970.....	45.72	48.03	32.14	37.24	60.00	753.19	83.22	3.83	6.45
1971.....	54.22	57.92	44.35	39.53	70.38	884.76	98.29	3.14	5.41
1972.....	60.29	65.73	50.17	38.48	78.35	950.71	109.20	2.84	5.50
1973.....	57.42	63.08	37.74	37.69	70.12	923.88	107.43	3.06	7.12
1974.....	43.84	48.08	31.89	29.79	49.67	759.37	82.85	4.47	11.59
1975.....	45.73	50.52	31.10	31.50	47.14	802.49	86.16	4.31	9.15
1976.....	54.46	60.44	39.57	36.97	52.94	974.92	102.01	3.77	8.90
1977.....	53.69	57.86	41.09	40.92	55.25	894.63	98.20	4.62	10.79
1978.....	53.70	58.23	43.50	39.22	56.65	820.23	96.02	5.28	12.03
1979.....	58.32	64.76	47.34	38.21	61.42	844.40	103.01	5.47	13.46
1980.....	68.10	78.70	60.61	37.35	64.25	891.41	118.78	5.26	.....
1979:									
Jan.....	55.77	61.31	43.69	38.83	57.59	837.39	99.71	5.33	.....
Feb.....	55.08	60.37	42.27	39.21	56.09	825.18	98.23	5.48	.....
Mar.....	56.19	61.89	43.22	38.94	57.65	847.84	100.11	5.41	13.09
Apr.....	57.50	63.63	45.92	38.63	59.50	864.96	102.07	5.35	.....
May.....	56.21	62.21	45.60	37.48	58.80	837.41	99.73	5.58	.....
June.....	57.61	63.57	47.54	38.44	61.87	838.65	101.73	5.53	13.58
July.....	58.38	64.24	48.85	38.88	64.43	836.95	102.71	5.50	.....
Aug.....	61.19	67.71	52.48	39.26	68.40	873.55	107.36	5.30	.....
Sept.....	61.89	69.17	52.21	38.39	67.21	878.50	108.60	5.31	13.38
Oct.....	59.27	66.68	48.09	36.58	61.64	840.39	104.47	5.56	.....
Nov.....	59.02	66.45	47.61	36.55	60.64	815.78	103.66	5.71	.....
Dec.....	61.75	69.82	50.59	37.29	63.21	836.14	107.78	5.53	13.77
1980:									
Jan.....	63.74	72.67	52.61	37.08	64.22	860.74	110.87	5.41	.....
Feb.....	66.06	76.42	57.92	36.22	61.84	878.22	115.34	5.24	.....
Mar.....	59.52	68.71	51.77	33.38	54.71	803.56	104.69	5.87	14.98
Apr.....	58.47	66.31	48.62	35.29	57.32	786.33	102.97	6.05	.....
May.....	61.38	69.39	51.07	37.31	61.47	828.19	107.69	5.77	.....
June.....	65.43	74.47	54.04	38.53	65.16	869.86	114.55	5.39	13.08
July.....	68.56	78.67	59.14	38.77	66.76	909.79	119.83	5.20	.....
Aug.....	70.87	82.15	62.48	38.18	67.22	947.33	123.50	5.06	.....
Sept.....	73.12	84.92	65.89	38.77	69.33	946.67	126.51	4.90	.....
Oct.....	75.17	88.00	70.76	38.44	68.29	949.17	130.22	4.80	.....
Nov.....	78.15	92.32	77.23	38.35	67.21	971.08	135.65	4.63	.....
Dec.....	76.69	90.37	75.74	37.84	67.46	945.96	133.48	4.74	.....

¹ Averages of daily closing prices, except New York Stock Exchange data through May 1964 are averages of weekly closing prices.² Includes all the stocks (more than 1,500) listed on the New York Stock Exchange.³ Includes 30 stocks.⁴ Includes 500 stocks.⁵ Standard & Poor's series, based on 500 stocks in the composite index.⁶ Aggregate cash dividends (based on latest known annual rate) divided by aggregate market value based on Wednesday closing prices. Monthly data are averages of weekly figures; annual data are averages of monthly figures.⁷ Ratio of quarterly earnings after taxes (seasonally adjusted annual rate) to price index for last day of quarter. Annual ratios are averages of quarterly ratios.

Note.—All data relate to stocks listed on the New York Stock Exchange.

Sources: New York Stock Exchange, Dow-Jones & Co., Inc., and Standard & Poor's Corporation.

TABLE B-91.—Business formation and business failures, 1929-80

Year or month	Index of net business formation (1967=100)	New business incorporations (number)	Business failure rate ²	Business failures ¹					
				Total	Number of failures		Amount of current liabilities (millions of dollars)		
					Liability size class		Total	Liability size class	
				Under \$100,000	\$100,000 and over			Under \$100,000	\$100,000 and over
1929.....			103.9	22,909	22,165	744	483.3	261.5	221.8
1933 ³			100.3	19,859	18,880	979	457.5	215.5	242.0
1939 ⁴			69.6	14,768	14,541	227	182.5	132.9	49.7
1940.....			63.0	13,619	13,400	219	166.7	119.9	46.8
1941.....			54.4	11,848	11,685	163	136.1	100.7	35.4
1942.....			44.6	9,405	9,282	123	100.8	80.3	20.5
1943.....			16.4	3,221	3,155	66	45.3	30.2	15.1
1944.....			6.5	1,222	1,176	46	31.7	14.5	17.1
1945.....			4.2	809	759	50	30.2	11.4	18.8
1946.....		132,916	5.2	1,129	1,003	126	67.3	15.7	51.6
1947.....		112,897	14.3	3,474	3,103	371	204.6	63.7	140.9
1948.....	104.8	96,346	20.4	5,250	4,853	397	234.6	93.9	140.7
1949.....	86.4	85,640	34.4	9,246	8,708	538	308.1	161.4	146.7
1950.....	90.8	93,092	34.3	9,162	8,746	416	248.3	151.2	97.1
1951.....	90.1	83,778	30.7	8,058	7,626	432	259.5	131.6	128.0
1952.....	94.5	92,946	28.7	7,611	7,081	530	283.3	131.9	151.4
1953.....	92.4	102,706	33.2	8,862	8,075	787	394.2	167.5	226.6
1954.....	90.8	117,411	42.0	11,086	10,226	860	462.6	211.4	251.2
1955.....	98.2	139,915	41.6	10,969	10,113	856	449.4	206.4	243.0
1956.....	95.4	141,163	48.0	12,686	11,615	1,071	562.7	239.8	322.9
1957.....	91.4	137,112	51.7	13,739	12,547	1,192	615.3	267.1	348.2
1958.....	91.1	150,781	55.9	14,964	13,499	1,465	728.3	297.6	430.7
1959.....	98.1	193,067	51.8	14,053	12,707	1,346	692.8	278.9	413.9
1960.....	94.5	182,713	57.0	15,445	13,650	1,795	938.6	327.2	611.4
1961.....	91.1	181,535	64.4	17,075	15,006	2,069	1,090.1	370.1	720.0
1962.....	92.8	182,057	60.8	15,782	13,772	2,010	1,213.6	346.5	867.1
1963.....	94.7	186,404	56.3	14,374	12,192	2,182	1,352.6	321.0	1,031.6
1964.....	98.0	197,724	53.2	13,501	11,346	2,155	1,329.2	313.6	1,015.6
1965.....	99.5	203,897	53.3	13,514	11,340	2,174	1,321.7	321.7	1,000.0
1966.....	98.9	200,010	51.6	13,061	10,833	2,228	1,385.7	321.5	1,064.1
1967.....	100.0	206,569	49.0	12,364	10,144	2,220	1,265.2	297.9	967.3
1968.....	107.6	233,635	38.6	9,636	7,829	1,807	941.0	241.1	699.9
1969.....	113.5	274,267	37.3	9,154	7,192	1,962	1,142.1	231.3	910.8
1970.....	107.1	264,209	43.8	10,748	8,019	2,729	1,887.8	269.3	1,618.4
1971.....	109.5	287,577	41.7	10,326	7,611	2,715	1,916.9	271.3	1,645.6
1972.....	115.5	316,601	38.3	9,566	7,040	2,526	2,000.2	258.8	1,741.5
1973.....	115.5	329,358	36.4	9,345	6,627	2,718	2,298.6	235.6	2,063.0
1974.....	111.2	319,149	38.4	9,915	6,733	3,182	3,053.1	256.9	2,796.3
1975.....	108.8	326,345	42.6	11,432	7,504	3,928	4,380.2	298.6	4,081.6
1976.....	117.2	375,766	34.8	9,628	6,176	3,452	3,011.3	257.8	2,753.4
1977.....	126.5	432,172	28.4	7,919	4,861	3,058	3,095.3	208.3	2,887.0
1978.....	132.9	478,019	23.9	6,619	3,712	2,907	2,656.0	164.7	2,491.3
1979.....	131.7	524,565	27.8	7,564	3,930	3,634	2,667.4	179.9	2,487.5
Seasonally adjusted									
1979:									
Jan.....	131.3	42,410	27.4	642	355	287	182.2	15.1	167.1
Feb.....	132.1	42,302	24.4	545	291	254	177.1	12.8	164.3
Mar.....	132.5	42,761	27.9	732	379	353	187.8	18.0	169.8
Apr.....	130.9	43,034	30.8	734	397	337	242.8	16.8	226.0
May.....	130.5	43,895	29.1	708	380	328	200.4	16.8	183.7
June.....	130.9	43,044	26.2	602	307	295	273.2	13.8	259.4
July.....	131.8	44,655	27.5	565	285	280	212.2	13.9	198.3
Aug.....	130.3	42,911	32.9	736	412	324	287.4	18.0	269.4
Sept.....	132.5	44,687	26.1	505	248	257	186.2	11.4	174.8
Oct.....	131.9	46,478	33.6	767	374	393	395.8	17.5	378.3
Nov.....	131.4	44,811	23.1	519	260	259	184.3	13.7	170.6
Dec.....	133.9	43,579	24.9	509	242	267	138.0	12.2	125.8
1980:									
Jan.....	131.0	44,447	30.9	729	363	366	243.1	17.0	226.2
Feb.....	129.8	44,583	27.5	677	330	347	190.8	15.5	175.3
Mar.....	125.8	42,615	36.2	925	452	473	274.2	21.7	252.5
Apr.....	120.5	42,461	42.2	1,068	525	543	428.2	24.4	403.8
May.....	117.8	41,974	39.3	975	452	523	381.1	22.0	359.2
June.....	114.8	39,746	48.7	1,094	522	572	436.7	25.2	411.5
July.....	115.3	44,058	52.0	1,141	531	610	445.7	26.3	419.4
Aug.....	117.7	43,266	45.4	1,009	486	523	345.4	23.2	322.2
Sept.....	120.6	46,488	45.0	926	465	461	1,002.9	22.2	980.7
Oct.....	117.6	47,225		1,340					

¹ Commercial and industrial failures only. Excludes failures of banks and railroads and, beginning 1933, of real estate, insurance, holding, and financial companies, steamship lines, travel agencies, etc.

² Failure rate per 10,000 listed enterprises.

³ Series revised; not strictly comparable with earlier data.

Sources: Department of Commerce (Bureau of Economic Analysis) and Dun & Bradstreet, Inc.

AGRICULTURE

TABLE B-92.—Farm income 1929-80

(Billions of dollars; quarterly data at seasonally adjusted annual rates)

Year or quarter	Income of farm operators from farming							
	Gross farm income					Production ex- penses	Net farm income	
	Total ¹	Cash marketing receipts			Value of inventory changes ²		Current dollars	1967 dollars ³
		Total	Live-stock and products	Crops				
1929.....	13.8	11.3	6.2	5.1	-0.1	7.7	6.2	12.0
1933.....	6.9	5.3	2.8	2.5	-2	4.4	2.6	6.6
1939.....	10.7	7.9	4.5	3.3	.1	6.3	4.4	10.6
1940.....	11.3	8.4	4.9	3.5	.3	6.9	4.5	10.7
1941.....	14.3	11.1	6.5	4.6	.4	7.8	6.5	14.7
1942.....	19.9	15.6	9.0	6.5	1.1	10.0	9.9	20.2
1943.....	23.3	19.6	11.5	8.1	-1.1	11.6	11.7	22.7
1944.....	24.0	20.5	11.4	9.2	-4	12.3	11.7	22.2
1945.....	25.4	21.7	12.0	9.7	-4	13.1	12.3	22.8
1946.....	29.6	24.8	13.8	11.0	.0	14.5	15.1	25.8
1947.....	32.4	29.6	16.5	13.1	-1.8	17.0	15.4	23.0
1948.....	36.5	30.2	17.1	13.1	1.7	18.8	17.7	24.5
1949.....	30.8	27.8	15.4	12.4	-9	18.0	12.8	17.9
1950.....	33.1	28.5	16.1	12.4	.8	19.5	13.6	18.9
1951.....	38.3	32.9	19.6	13.2	1.2	22.3	15.9	20.5
1952.....	37.8	32.5	18.2	14.3	.9	22.8	15.0	18.8
1953.....	34.4	31.0	16.9	14.1	-6	21.5	13.0	16.2
1954.....	34.2	29.8	16.3	13.6	.5	21.8	12.4	15.4
1955.....	33.5	29.5	16.0	13.5	.2	22.2	11.3	14.1
1956.....	34.0	30.4	16.4	14.0	-5	22.7	11.3	13.8
1957.....	34.8	29.7	17.4	12.3	.6	23.7	11.1	13.1
1958.....	39.0	33.5	19.2	14.2	.8	25.8	13.2	15.2
1959.....	37.9	33.6	18.9	14.7	.0	27.2	10.7	12.3
1960.....	38.9	34.2	19.0	15.3	.4	27.4	11.5	13.0
1961.....	40.5	35.2	19.5	15.7	.3	28.6	12.0	12.3
1962.....	42.3	36.5	20.2	16.3	.6	30.3	12.1	13.3
1963.....	43.4	37.5	20.0	17.4	.6	31.6	11.8	12.8
1964.....	42.3	37.3	19.9	17.2	-8	31.8	10.5	11.3
1965.....	46.5	39.4	21.9	17.5	1.0	33.7	12.9	13.7
1966.....	50.5	43.4	25.0	18.4	-1	36.5	14.0	14.4
1967.....	50.5	42.8	24.4	18.4	.7	38.2	12.3	12.3
1968.....	51.8	44.2	25.5	18.7	.1	39.5	12.3	11.8
1969.....	56.4	48.2	28.6	19.6	.1	42.1	14.3	13.0
1970.....	58.6	50.5	29.6	21.0	.0	44.4	14.2	12.2
1971.....	62.0	52.9	30.6	22.3	1.4	47.4	14.6	12.1
1972.....	71.0	61.2	35.7	25.5	.9	52.3	18.7	14.9
1973.....	98.9	87.1	45.9	41.1	3.4	65.6	33.3	25.1
1974.....	98.3	92.4	41.4	51.1	-1.6	72.2	26.1	17.7
1975.....	100.3	88.2	43.0	45.1	3.4	75.9	24.5	15.2
1976.....	101.8	94.8	46.1	48.7	-2.4	83.1	18.7	11.0
1977.....	108.1	95.8	47.4	48.3	.6	90.3	17.8	9.8
1978.....	126.9	112.5	59.0	53.5	.4	100.8	26.1	13.3
1979.....	149.6	131.5	68.6	62.8	4.1	118.6	31.0	14.2
1978:								
I.....	119.7	105.5	53.0	52.5	.5	97.4	22.3	11.8
II.....	123.5	109.8	58.0	51.8	.3	98.8	24.7	12.8
III.....	126.3	112.7	60.6	52.1	.4	100.1	26.2	13.2
IV.....	138.0	122.2	64.6	57.6	.4	106.9	31.1	15.4
1979:								
I.....	145.5	128.9	69.7	59.2	3.2	114.2	31.3	15.1
II.....	149.1	130.9	68.2	62.7	3.9	116.3	32.8	15.3
III.....	149.9	130.6	66.9	63.7	5.4	119.6	30.3	13.7
IV.....	154.1	135.4	69.7	65.7	3.9	124.2	29.9	13.1
1980:								
I.....	152.1	137.2	67.9	69.2	1.0	127.2	25.9	10.9
II.....	151.8	136.4	65.6	70.8	1.5	129.9	23.4	9.6
III.....	158.6	142.8	70.5	72.3	-3.9	132.9	21.8	8.8

¹ Cash marketing receipts and inventory changes plus Government payments, other farm cash income, and nonmoney income furnished by farms.

² Physical changes in end-of-period inventory of crop and livestock commodities valued at average prices during the period.

³ Income in current dollars divided by the consumer price index (Department of Labor).

Source: Department of Agriculture, except as noted.

TABLE B-93.—Farm output and productivity indexes, 1929–80

[1967=100]

Year	Farm output						Productivity indicators				
	Total ¹	Crops ²				Live-stock and products ³	Farm output per unit of total input	Crop production per acre ⁴	Farm output per hour of farm work		
		Total ²	Feed grains	Food grains	Oil crops				Total	Crops	Live-stock and products
1929.....	53	62	48	52	11	53	52	56	16	16	26
1933.....	51	55	44	36	8	57	53	50	16	15	25
1939.....	58	64	51	48	25	59	59	60	19	20	27
1940.....	60	67	52	52	29	60	60	62	20	21	27
1941.....	62	68	56	60	29	64	62	63	21	23	28
1942.....	70	76	64	63	40	71	68	70	24	25	30
1943.....	69	71	59	54	41	77	66	64	24	24	31
1944.....	71	75	62	67	36	73	67	68	24	25	30
1945.....	70	73	60	70	36	73	68	67	26	27	31
1946.....	71	77	65	72	34	71	71	71	27	29	32
1947.....	69	73	50	85	39	70	68	67	28	29	33
1948.....	76	83	72	81	47	68	74	75	31	33	34
1949.....	74	79	63	70	45	72	71	70	32	33	35
1950.....	74	76	64	65	46	75	71	69	34	36	37
1951.....	76	78	59	64	47	78	71	70	35	35	39
1952.....	79	81	63	83	46	78	74	73	38	39	40
1953.....	79	81	61	76	47	79	75	72	39	40	41
1954.....	80	79	64	67	49	82	76	71	42	42	43
1955.....	82	82	68	63	53	84	78	74	44	45	46
1956.....	82	82	68	66	60	84	80	76	47	48	48
1957.....	81	80	74	62	58	83	80	77	51	53	50
1958.....	87	89	80	91	69	84	87	86	57	61	54
1959.....	88	89	84	73	64	88	87	85	59	61	58
1960.....	91	93	87	87	68	87	90	89	65	66	62
1961.....	91	91	78	80	77	91	91	92	67	68	66
1962.....	92	92	79	74	78	92	92	95	71	72	71
1963.....	96	96	86	77	81	95	96	97	77	77	77
1964.....	95	94	75	86	81	97	95	95	81	79	82
1965.....	98	99	88	88	95	95	100	100	89	90	86
1966.....	95	95	89	88	97	97	97	97	92	94	93
1967.....	100	100	100	100	100	100	100	100	100	100	100
1968.....	102	103	95	106	114	100	102	105	106	106	105
1969.....	102	104	99	98	116	101	103	106	110	108	112
1970.....	101	100	89	91	117	105	102	104	115	111	121
1971.....	110	112	116	107	121	106	110	112	128	126	128
1972.....	110	113	112	102	131	107	110	115	136	135	137
1973.....	112	119	115	114	155	105	111	116	130	138	144
1974.....	106	110	93	120	127	106	105	104	136	128	156
1975.....	114	121	114	142	153	101	115	112	152	142	160
1976.....	117	121	120	141	132	105	115	111	162	146	178
1977.....	119	129	126	132	175	106	114	117	173	158	189
1978.....	122	131	135	125	182	106	116	121	183	166	204
1979.....	129	144	145	143	219	110	119	130	184	171	195
1980 ^u	123	129	119	157	168	112	115	113	189	166	224

¹ Farm output measures the annual volume of net farm production available for eventual human use through sales from farms or consumption in farm households.

² Gross production.

³ Includes items not included in groups shown.

⁴ Computed from variable weights for individual crops produced each year.

Source: Department of Agriculture.

TABLE B-94.—Farm input use, selected inputs, 1929-80

Year	Farm population (April 1) ¹		Farm employment (thousands) ²			Crops harvested (millions of acres) ⁴	Selected indexes of input use (1967=100)					
	Number (thousands)	As percent of total population ²	Total	Family workers	Hired workers		Total	Farm labor	Farm real estate	Mechanical power and machinery	Agricultural chemicals ⁵	Feed, seed, and livestock purchases ⁶
1929	30,580	25.1	12,763	9,360	3,403	365	102	329	103	38	10	31
1933	32,393	25.8	12,739	9,874	2,865	340	96	321	97	32	6	28
1939	30,840	23.5	11,338	8,611	2,727	331	98	294	102	40	11	41
1940	30,547	23.1	10,979	8,300	2,679	341	100	293	103	42	13	42
1941	30,118	22.6	10,669	8,017	2,652	344	100	288	102	44	14	45
1942	28,914	21.4	10,504	7,949	2,555	348	103	296	100	51	15	48
1943	26,186	19.2	10,446	8,010	2,436	357	104	292	98	55	17	52
1944	24,815	17.9	10,219	7,988	2,231	362	105	289	98	57	20	52
1945	24,420	17.5	10,000	7,881	2,119	354	103	271	98	58	20	54
1946	25,403	18.0	10,295	8,106	2,189	352	101	260	102	57	21	53
1947	25,829	17.9	10,382	8,115	2,267	355	101	246	103	64	23	55
1948	24,383	16.6	10,363	8,026	2,337	356	103	240	103	72	25	56
1949	24,194	16.2	9,964	7,712	2,252	360	105	231	104	80	27	61
1950	23,048	15.2	9,926	7,597	2,329	345	104	217	105	84	29	63
1951	21,890	14.2	9,546	7,310	2,236	344	107	218	105	90	32	67
1952	21,748	13.9	9,149	7,005	2,144	349	107	208	105	94	35	69
1953	19,874	12.5	8,864	6,775	2,089	348	106	200	105	96	36	69
1954	19,019	11.7	8,651	6,570	2,081	346	105	192	105	96	37	71
1955	19,078	11.5	8,381	6,345	2,036	340	105	185	105	97	39	72
1956	18,712	11.1	7,852	5,900	1,952	324	103	174	102	98	41	75
1957	17,656	10.3	7,600	5,660	1,940	324	101	162	102	97	41	74
1958	17,128	9.8	7,503	5,521	1,982	324	100	156	100	97	43	79
1959	16,592	9.4	7,342	5,390	1,952	324	102	151	101	98	49	84
1960	15,635	8.7	7,057	5,172	1,885	324	101	145	100	97	49	84
1961	14,803	8.1	6,919	5,029	1,890	302	100	139	100	94	53	88
1962	14,313	7.7	6,700	4,873	1,827	295	100	133	100	94	58	90
1963	13,367	7.1	6,518	4,738	1,780	298	100	129	100	93	65	90
1964	12,954	6.8	6,110	4,506	1,604	298	100	122	100	93	71	92
1965	12,363	6.4	5,610	4,128	1,482	298	98	110	99	94	75	93
1966	11,595	5.9	5,214	3,854	1,360	294	98	103	99	96	85	97
1967	10,875	5.5	4,903	3,650	1,253	306	100	100	100	100	100	100
1968	10,454	5.2	4,749	3,535	1,213	300	100	97	99	101	105	97
1969	10,307	5.1	4,596	3,419	1,176	290	99	93	98	101	111	101
1970	9,712	4.7	4,523	3,348	1,175	293	100	89	101	100	115	104
1971	9,425	4.6	4,436	3,275	1,161	305	100	86	99	102	124	111
1972	9,610	4.6	4,373	3,228	1,146	294	100	82	98	101	131	113
1973	9,472	4.5	4,337	3,169	1,168	321	101	80	97	105	136	116
1974	9,264	4.4	4,389	3,075	1,314	328	100	78	95	109	140	107
1975	8,864	4.2	4,342	3,026	1,317	336	100	76	96	113	127	101
1976	8,253	3.8	4,374	2,997	1,377	337	103	73	97	116	145	110
1977	7,194	2.9	4,155	2,859	1,296	344	105	70	99	120	154	112
1978	7,501	3.0	3,957	2,689	1,267	337	105	67	97	125	160	115
1979	7,621	2.8	3,774	2,501	1,273	348	108	66	96	129	182	120
1980 ⁷	7,100	2.7	3,790	2,485	1,305	.....	107	65	97	125	183	121

¹ Farm population as defined by Department of Agriculture and Department of Commerce, i.e., civilian population living on farms, regardless of occupation. See also footnote 7.

² Total population of United States as of July 1, including Armed Forces overseas. Data from 1980 census not yet available.

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-29) because of differences in the method of approach in concepts of employment, and in time of month for which the data are collected. See quarterly report on "Farm Labor."

⁴ Acreage harvested plus acreages in fruits, tree nuts, and farm gardens.

⁵ Fertilizer, lime, and pesticides.

⁶ Nonfarm constant dollar value of feed, seed, and livestock purchases.

⁷ Based on new definition of a farm. Under old definition of a farm, farm population (in thousands and as percent of total population) for 1977, 1978, and 1979 is 7,806 and 3.6; 8,005 and 3.7; and 7,553 and 3.4, respectively.

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

TABLE B-95.—Indexes of prices received and prices paid by farmers, 1940-80

[1967 = 100]

Year or month	Prices received by farmers			All commodities, services, interest, taxes, and wage rates ¹	Prices paid by farmers					Addendum: Average farm real estate value per acre ⁴
	All farm products	Crops	Live-stock and products		Production items					
					Total ²	Tractors and self-propelled machinery	Fertilizer	Fuels and energy	Wage rates ³	
1940.....	40	40	40	36	43				15	19
1941.....	49	48	50	39	45				18	19
1942.....	64	64	62	44	52				23	21
1943.....	77	83	72	50	57				31	23
1944.....	79	88	71	53	60				38	26
1945.....	83	90	77	56	61				42	29
1946.....	94	102	88	61	67				46	32
1947.....	110	117	105	70	78				49	36
1948.....	115	113	115	76	87				52	39
1949.....	100	100	99	73	83				51	41
1950.....	103	103	102	75	86				50	40
1951.....	121	118	122	82	95				55	46
1952.....	115	119	111	84	95				59	51
1953.....	102	107	97	81	89				61	52
1954.....	98	108	90	81	89				60	51
1955.....	93	103	85	81	87				61	53
1956.....	92	104	82	81	87				63	55
1957.....	94	100	89	84	90				66	58
1958.....	100	99	99	86	92				68	61
1959.....	96	98	93	87	93				72	66
1960.....	95	99	92	88	92				74	68
1961.....	96	101	91	88	93				76	69
1962.....	98	103	93	90	94				78	73
1963.....	97	107	89	91	95				80	77
1964.....	95	106	86	92	94				82	82
1965.....	98	103	94	94	96	92	103	98	86	86
1966.....	106	106	106	99	100	96	102	98	93	93
1967.....	100	100	100	100	100	100	100	100	100	100
1968.....	102	100	104	103	100	104	94	101	108	107
1969.....	107	97	117	108	104	111	87	102	119	113
1970.....	110	100	118	112	108	116	88	104	128	117
1971.....	113	108	118	118	113	122	91	107	134	122
1972.....	125	114	136	125	121	128	94	108	142	132
1973.....	179	175	183	144	146	137	102	116	155	150
1974.....	192	224	165	164	166	161	167	159	178	187
1975.....	185	201	172	180	182	195	217	177	192	213
1976.....	186	197	177	192	193	217	185	187	210	242
1977.....	183	192	175	202	200	238	181	202	226	283
1978.....	210	203	217	219	217	259	180	212	242	308
1979.....	241	223	257	250	248	289	196	276	265	351
1980.....	245	239	251	280	275	323	243	380	286	404
1979:										
Jan.....	233	209	253	235	231	272	179	226	257	
Feb.....	242	216	265	239	236	272	179	229	257	351
Mar.....	246	214	274	244	244	280	187	235	257	
Apr.....	245	213	274	247	247	280	187	246	269	
May.....	246	220	270	249	248	280	194	256	269	
June.....	244	234	255	249	248	293	194	270	269	
July.....	244	238	249	252	251	293	194	285	266	
Aug.....	238	236	242	251	249	293	194	298	266	
Sept.....	240	226	254	255	254	302	194	308	266	
Oct.....	236	224	247	257	256	302	211	314	269	
Nov.....	238	226	251	258	256	302	211	318	269	379
Dec.....	239	222	255	260	258	302	222	324	269	
1980:										
Jan.....	236	220	252	269	263	302	222	345	284	
Feb.....	238	220	255	271	266	302	222	365	284	404
Mar.....	234	220	247	274	270	317	244	378	284	
Apr.....	224	217	232	274	268	317	244	384	284	
May.....	227	223	232	275	268	317	248	385	284	
June.....	232	226	237	278	270	325	248	387	284	
July.....	247	242	252	280	273	325	248	388	288	
Aug.....	256	250	262	283	278	325	248	385	288	
Sept.....	261	259	263	286	282	337	248	385	289	
Oct.....	260	259	263	288	284	337	246	383	288	
Nov.....	264	270	260	290	287	337	246	386	288	
Dec.....	261	266	258	291	287	337	247	390	288	

¹ Includes items used for family living, not shown separately.² Includes other items not shown separately.³ Seasonally adjusted; annual data are averages of seasonally adjusted data.⁴ Average for 48 States. Annual data are for March 1 of each year through 1975 and for February 1 beginning 1976. Monthly data are for first of month.

Source: Department of Agriculture.

TABLE B-96.—U.S. exports and imports of agricultural commodities, 1940-80

[Billions of dollars]

Year	Exports							Imports					Agricultural trade balance
	Total ¹	Feed grains	Food grains ²	Oil-seeds 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	(*)	(*)	(*)	0.2	(*)	0.1	1.3	(*)	0.2	0.1	(*)	-0.8
1941	7	(*)	0.1	(*)	.1	0.1	.3	1.7	0.1	.3	.2	(*)	-1.0
1942	1.2	(*)	(*)	(*)	.1	.1	.8	1.3	(*)	.5	.2	(*)	-1
1943	2.1	(*)	.1	0.1	.2	.2	1.2	1.5	.1	.4	.3	(*)	.6
1944	2.1	(*)	.1	.1	.1	.1	1.3	1.8	.1	.3	.3	(*)	.3
1945	2.3	(*)	.4	(*)	.3	.2	.9	1.7	.1	.4	.3	(*)	.5
1946	3.1	0.1	.7	(*)	.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	-0.9
1955	3.2	.3	.6	.4	.5	.4	.6	4.0	.2	.5	1.4	.2	-0.8
1956	4.2	.4	1.0	.5	.7	.3	.7	4.0	.2	.4	1.4	.2	.6
1957	4.5	.3	1.0	.5	1.0	.4	.7	4.0	.2	.5	1.4	.2	.2
1958	3.9	.5	.8	.4	.7	.4	.5	3.9	.2	.7	1.2	.2	(*)
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	22.0	4.6	5.4	5.7	1.3	.9	1.8	10.2	.8	2.2	1.6	.5	11.8
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
Jan-Oct:													
1979	27.3	6.1	5.1	6.8	1.7	.8	3.1	13.6	1.4	3.1	3.2	1.0	13.7
1980	33.2	7.7	6.3	7.5	2.5	1.0	3.1	14.3	1.4	3.0	3.6	.8	18.8

¹ Total includes items not shown separately.² Rice, wheat, and wheat flour.³ Includes nuts, fruits, and vegetable preparations.⁴ Less than \$50 million.

Note.—Data derived from official estimates released by the Bureau of the Census, Department of Commerce. Agricultural commodities are defined as (1) nonmarine food products and (2) other products of agriculture which have not passed through complex processes of manufacture. Export value, at U.S. port of exportation, is based on the selling price and includes inland freight, insurance, and other charges to the port. Import value, defined generally as the market value in the foreign country, excludes import duties, ocean freight, and marine insurance.

Source: Department of Agriculture.

TABLE B-97.—Balance sheet of the farming sector, 1929-81

[Billions of dollars]

Beginning of year	Assets									Claims			
	Total	Real estate	Live-stock ¹	Other physical assets			Financial assets			Total	Real estate debt	Other debt	Proprietors' equities
				Machinery and motor vehicles	Crops ²	Household equipment and furnishings	Deposits and currency	U.S. savings bonds	Investments in cooperatives				
1929.....		48.0	6.6	3.2							9.8		
1933.....		30.8	3.0	2.5							8.5		
1939.....		34.1	5.1	3.2							6.8		
1940.....	53.0	33.6	5.1	3.1	2.7	4.2	3.2	0.3	0.8	53.0	6.6	3.4	43.0
1941.....	54.8	34.4	5.3	3.3	3.0	4.1	3.5	3	9	54.8	6.5	3.9	44.4
1942.....	62.9	37.5	7.1	4.0	3.9	4.8	4.2	5	9	62.9	6.4	4.1	52.4
1943.....	73.6	41.6	9.6	4.9	5.1	4.8	5.5	1.1	1.0	73.6	5.9	4.0	63.7
1944.....	84.0	48.2	9.7	5.4	6.1	4.7	6.6	2.2	1.1	84.0	5.4	3.5	75.1
1945.....	93.8	53.9	9.0	6.5	6.7	5.2	7.9	3.4	1.2	93.8	4.9	3.2	85.5
1946.....	102.9	61.0	9.7	6.4	6.3	5.5	9.4	4.2	1.4	102.9	4.7	3.2	95.0
1947.....	115.9	68.5	11.9	5.3	7.1	7.2	10.2	4.2	1.5	115.9	4.9	3.6	107.4
1948.....	127.4	73.7	13.2	7.4	9.0	8.1	9.9	4.4	1.7	127.4	5.1	4.2	118.1
1949.....	134.6	76.6	14.4	10.1	8.5	8.9	9.6	4.6	1.9	134.6	5.3	6.1	123.2
1950.....	134.5	77.6	12.9	12.2	7.6	8.4	9.1	4.7	2.0	134.5	5.6	6.8	122.1
1951.....	154.3	89.5	17.1	14.1	7.9	9.6	9.1	4.7	2.3	154.3	6.1	6.9	141.3
1952.....	170.1	98.4	19.5	16.7	8.8	10.1	9.4	4.7	2.5	170.1	6.7	8.0	155.4
1953.....	167.6	100.1	14.8	17.4	9.0	9.6	9.4	4.6	2.7	167.6	7.2	8.9	151.5
1954.....	164.6	98.7	11.8	18.4	9.2	9.5	9.4	4.7	2.9	164.6	7.7	9.2	147.7
1955.....	168.8	102.2	11.2	18.6	9.6	9.7	9.4	5.0	3.1	168.8	8.2	9.4	151.2
1956.....	173.6	107.5	10.6	19.3	8.3	10.0	9.5	5.2	3.2	173.6	9.0	9.8	154.8
1957.....	182.8	115.7	11.0	20.2	8.3	9.6	9.4	5.1	3.5	182.8	9.8	9.5	163.5
1958.....	191.3	121.8	13.9	20.1	7.6	9.6	9.5	5.1	3.7	191.3	10.4	10.0	170.9
1959.....	208.4	131.1	17.7	21.8	9.3	9.4	10.0	5.2	3.9	208.4	11.1	12.5	184.8
1960.....	210.2	137.2	15.3	22.7	7.7	9.2	9.2	4.7	4.2	210.2	12.0	12.8	185.4
1961.....	210.8	138.5	15.6	22.2	8.0	8.7	8.7	4.6	4.5	210.8	12.8	13.4	184.6
1962.....	219.3	144.5	16.4	22.5	8.8	8.9	8.8	4.5	4.9	219.3	13.8	14.7	190.8
1963.....	227.7	150.2	17.3	23.5	9.3	8.8	9.2	4.4	5.0	227.7	15.1	16.3	196.3
1964.....	235.8	158.6	15.9	23.9	9.8	8.8	9.2	4.2	5.4	235.8	16.8	17.6	201.4
1965.....	243.8	167.5	14.5	24.8	9.2	8.4	9.6	4.2	5.6	243.8	18.9	17.9	207.0
1966.....	260.8	179.2	17.6	26.0	9.7	8.4	10.0	4.0	5.9	260.8	21.2	19.5	220.1
1967.....	274.2	189.1	19.0	27.4	10.0	8.3	10.3	3.9	6.2	274.2	23.1	21.0	230.1
1968.....	288.0	199.7	18.9	29.8	9.6	8.8	10.9	3.8	6.5	288.0	25.1	22.3	240.6
1969.....	302.8	209.2	20.2	31.3	10.6	9.4	11.5	3.8	6.8	302.8	27.4	23.1	252.3
1970.....	314.9	215.8	23.5	32.3	10.9	9.6	11.9	3.7	7.2	314.9	29.2	23.8	261.9
1971.....	326.0	223.2	23.7	34.4	10.7	10.0	12.4	3.6	8.0	326.0	30.3	24.2	271.5
1972.....	351.8	239.6	27.3	36.6	11.8	10.8	13.2	3.7	8.8	351.8	32.2	26.9	292.7
1973.....	394.8	267.3	34.1	39.3	14.5	11.9	14.0	4.0	9.7	394.8	35.7	29.6	329.5
1974.....	478.5	327.7	42.4	44.2	22.1	12.3	14.9	4.1	10.8	478.5	41.3	32.8	404.4
1975.....	517.6	368.5	24.6	55.7	23.3	14.0	15.1	4.3	12.1	517.6	46.3	35.5	435.8
1976.....	580.2	416.9	29.5	65.0	21.3	14.2	15.6	4.4	13.3	580.2	51.1	39.7	489.4
1977 ^a	641.4	472.9	29.0	71.0	22.0	13.7	14.8	3.8	14.1	641.4	56.6	46.1	538.7
1978.....	697.4	513.7	31.9	77.0	24.9	15.5	15.2	3.9	15.3	697.4	63.6	55.6	578.1
1979.....	804.4	586.1	51.2	85.1	27.4	18.0	15.5	4.2	16.8	804.4	70.8	65.2	668.3
1980.....	918.9	671.2	61.2	94.3	33.1	20.5	15.9	4.0	18.6	918.9	82.1	75.2	761.6
1981.....	999.3	730.3	69.9	98.0	38.3	22.5	16.2	3.6	20.5	999.3	96.1	84.4	818.8

¹ Beginning with 1961, horses and mules are excluded.² Includes all crops held on farms and crops held off farms by farmers as security for Commodity Credit Corporation loans. The latter on January 1, 1981 totaled approximately \$1.0 billion.^a Beginning 1977, data are for farms included in the new farm definition, that is, places with sales of \$1,000 or more annually.

Note.—Beginning 1960, data include Alaska and Hawaii.

Source: Department of Agriculture.

INTERNATIONAL STATISTICS

TABLE B-98—Exchange rates, 1973-80

(Cents per unit of foreign currency, except as noted)

Year and month	Belgian franc	Canadian dollar	French franc	German mark	Italian lira	Japanese yen
March 1973.....	2.5377	100.333	22.191	35.548	0.17600	0.38190
1974:						
Mar.....	2.5040	102.877	20.742	38.211	15687	35454
June.....	2.6366	103.481	20.408	39.603	15379	35340
Sept.....	2.5364	101.384	20.831	37.580	15103	33439
Dec.....	2.7158	101.192	22.109	40.816	15179	33288
1975:						
Mar.....	2.9083	99.954	23.804	43.120	15842	34731
June.....	2.8603	97.426	24.971	42.726	15982	34077
Sept.....	2.5485	97.437	22.367	38.191	14740	33345
Dec.....	2.5311	98.627	22.428	38.144	14645	32715
1976:						
Mar.....	2.5480	101.431	21.657	39.064	12113	33276
June.....	2.5220	102.712	21.109	38.797	11780	33424
Sept.....	2.6046	102.557	20.334	40.169	11837	34800
Dec.....	2.7483	98.204	20.055	41.965	11521	33933
1977:						
Mar.....	2.7258	95.125	20.075	41.812	11276	35687
June.....	2.7713	94.549	20.240	42.453	11295	36652
Sept.....	2.7910	93.168	20.314	43.034	11318	37486
Dec.....	2.9608	91.132	20.844	46.499	11416	41491
1978:						
Mar.....	3.1589	88.823	21.256	49.181	11692	43148
June.....	3.0590	89.143	21.841	47.984	11634	46744
Sept.....	3.2207	85.739	22.909	50.778	12050	52656
Dec.....	3.3637	84.763	23.178	53.217	11863	51038
1979:						
Mar.....	3.3971	85.187	23.328	53.754	11888	48470
June.....	3.3048	85.296	22.914	53.084	11828	45750
Sept.....	3.4684	85.814	23.826	55.758	12326	44963
Dec.....	3.5423	85.471	24.614	57.671	12329	41613
1980:						
Mar.....	3.3395	85.255	23.188	54.039	11635	40246
June.....	3.5335	86.836	24.310	56.584	11973	45894
Sept.....	3.4844	85.861	24.056	55.883	11742	46644
Dec.....	3.1543	83.560	21.925	50.769	10704	47747
	Netherlands guilder	Swedish krona	Swiss franc	United Kingdom pound	United States dollar (March 1973=100)	
					Multilateral trade-weighted average	Bilateral trade-weighted average
March 1973.....	34.834	22.582	31.084	247.24	100.0	100.0
1974:						
Mar.....	36.354	21.915	32.490	234.06	101.6	100.9
June.....	37.757	22.885	33.449	239.02	100.0	99.9
Sept.....	36.870	22.333	33.371	231.65	102.9	103.0
Dec.....	39.331	23.897	38.442	232.94	98.6	101.0
1975:						
Mar.....	42.124	25.481	40.273	241.80	93.9	98.5
June.....	41.502	25.532	40.086	228.03	94.8	100.0
Sept.....	37.229	22.501	36.905	208.35	103.0	104.9
Dec.....	37.234	22.685	37.970	202.21	103.5	105.0
1976:						
Mar.....	37.149	22.702	38.980	194.28	105.1	104.6
June.....	36.524	22.475	40.484	176.40	107.1	105.2
Sept.....	38.390	22.998	40.431	172.72	105.7	104.0
Dec.....	40.240	24.051	40.823	167.84	105.3	105.8
1977:						
Mar.....	40.079	23.726	39.209	171.74	105.2	106.2
June.....	40.326	22.625	40.170	171.91	104.4	105.6
Sept.....	40.604	20.602	42.115	174.31	103.8	105.4
Dec.....	42.955	21.044	48.168	185.46	98.4	101.9
1978:						
Mar.....	45.994	21.693	52.693	190.55	94.8	100.3
June.....	44.716	21.690	53.046	183.72	94.7	99.2
Sept.....	46.733	22.592	63.765	195.95	89.5	96.0
Dec.....	49.120	22.808	59.703	198.61	88.5	96.3
1979:						
Mar.....	49.801	22.901	59.473	203.78	88.4	96.7
June.....	48.374	23.028	58.884	211.19	89.6	98.0
Sept.....	50.635	23.860	62.087	219.66	86.7	96.5
Dec.....	52.092	23.935	62.542	220.07	86.3	97.5
1980:						
Mar.....	49.270	23.008	56.710	220.45	90.3	100.1
June.....	51.578	23.995	61.207	233.59	85.3	94.9
Sept.....	51.398	24.072	61.012	240.12	85.5	95.1
Dec.....	46.730	22.722	56.022	234.60	91.0	98.7

Source: Board of Governors of the Federal Reserve System.

TABLE B-99—U.S. international transactions, 1946-80

(Millions of dollars; quarterly data seasonally adjusted)

Year or quarter	Merchandise ^{1,2}			Investment income ³			Net military transactions	Net travel and transportation receipts	Other services, net ³	Balance on goods and services ^{1,4}	Remittances, pensions, and other unilateral transfers ¹	Balance on current account ^{1,4}
	Exports	Imports	Net balance	Re-ceipts	Pay-ments	Net						
1946	11,764	-5,067	6,697	772	-212	560	-493	733	310	7,807	-2,922	4,885
1947	16,097	-5,973	10,124	1,102	-245	857	-455	946	145	11,617	-2,625	8,992
1948	13,265	-7,557	5,708	1,921	-437	1,484	-799	374	175	6,942	-4,525	2,417
1949	12,213	-6,874	5,339	1,831	-476	1,355	-621	230	208	6,511	-5,638	873
1950	10,203	-9,081	1,122	2,068	-559	1,509	-576	-120	242	2,177	-4,017	-1,840
1951	14,243	-11,176	3,067	2,633	-583	2,050	-1,270	298	254	4,399	-3,515	884
1952	13,449	-10,838	2,611	2,751	-555	2,196	-2,054	83	309	3,145	-2,531	614
1953	12,412	-10,975	1,437	2,736	-624	2,112	-2,423	-238	307	1,195	-2,481	-1,286
1954	12,929	-10,353	2,576	2,929	-582	2,347	-2,460	-269	305	2,499	-2,280	219
1955	14,424	-11,527	2,897	3,406	-676	2,730	-2,701	-297	299	2,928	-2,498	430
1956	17,556	-12,803	4,753	3,837	-735	3,102	-2,788	-361	447	5,153	-2,423	2,730
1957	19,562	-13,291	6,271	4,180	-796	3,384	-2,841	-189	482	7,107	-2,345	4,762
1958	16,414	-12,952	3,462	3,790	-825	2,965	-3,135	-633	486	3,145	-2,361	784
1959	16,458	-15,310	1,148	4,132	-1,061	3,071	-2,805	-821	573	1,166	-2,448	-1,282
1960	19,650	-14,758	4,892	4,616	-1,237	3,379	-2,752	-964	579	5,132	-2,308	2,824
1961	20,108	-14,537	5,571	4,998	-1,245	3,753	-2,596	-978	594	6,345	-2,524	3,821
1962	20,781	-16,260	4,521	5,619	-1,324	4,295	-2,449	-1,152	809	6,026	-2,638	3,388
1963	22,272	-17,048	5,224	6,157	-1,561	4,596	-2,304	-1,309	960	7,167	-2,754	4,414
1964	25,501	-18,700	6,801	6,823	-1,784	5,039	-2,133	-1,146	1,041	9,603	-2,781	6,822
1965	26,461	-21,510	4,951	7,436	-2,088	5,348	-2,122	-1,280	1,387	8,284	-2,854	5,431
1966	29,310	-25,493	3,817	7,526	-2,481	5,045	-2,935	-1,331	1,365	5,961	-2,932	3,029
1967	30,666	-26,866	3,800	8,021	-2,747	5,274	-3,226	-1,750	1,612	5,709	-3,125	2,584
1968	33,626	-32,991	635	9,368	-3,378	5,990	-3,143	-1,548	1,630	3,563	-2,952	611
1969	36,414	-35,807	607	10,912	-4,869	6,043	-3,328	-1,763	1,833	3,393	-2,994	399
1970	42,469	-39,866	2,603	11,746	-5,516	6,230	-3,354	-2,038	2,180	5,624	-3,294	2,330
1971	43,319	-45,579	-2,260	12,706	-5,436	7,270	-2,893	-2,345	2,495	2,268	-3,701	-1,434
1972	49,381	-55,797	-6,416	14,764	-6,572	8,192	-3,420	-3,063	2,766	-1,941	-3,854	-5,795
1973	71,410	-70,499	911	21,808	-9,655	12,153	-2,070	-3,158	3,184	11,021	-3,881	7,140
1974	98,306	-103,649	-5,343	27,587	-12,084	15,503	-1,653	-3,184	3,986	9,309	-7,186	2,124
1975	107,088	-98,041	9,047	25,351	-12,564	12,787	-746	-2,792	4,598	22,893	-4,613	18,280
1976	114,745	-124,051	-9,306	29,286	-13,311	15,975	559	-2,558	4,711	9,382	-4,998	4,384
1977	120,816	-151,689	-30,873	32,587	-14,598	17,989	1,628	-3,293	5,086	-9,464	-4,605	-14,068
1978	142,054	-175,813	-33,759	42,972	-22,073	20,899	886	-3,188	5,959	-9,204	-5,055	-14,259
1979	182,055	-211,524	-29,469	65,970	-33,460	32,510	-1,275	-2,695	5,806	4,878	-5,666	-788
1978:												
I	30,922	-42,063	-11,141	9,607	-4,539	5,068	441	-752	1,415	-4,969	-1,204	-6,173
II	35,404	-43,639	-8,235	9,577	-5,474	4,483	303	-752	1,466	-2,795	-1,307	-4,102
III	36,828	-44,336	-7,508	10,557	-5,717	4,840	139	-910	1,506	-1,933	-1,233	-3,166
IV	38,900	-45,715	-6,815	12,851	-6,343	6,508	3	-774	1,571	493	-1,313	-820
1979:												
I	41,805	-46,919	-5,114	14,263	-7,225	7,038	-29	-611	1,448	2,732	-1,324	1,408
II	42,815	-50,885	-8,070	15,250	-7,980	7,270	-102	-637	1,428	-110	-1,383	-1,493
III	47,198	-54,258	-7,060	18,050	-8,731	9,319	-443	-834	1,524	2,506	-1,407	1,099
IV	50,237	-59,462	-9,225	18,407	-9,524	8,883	-700	-613	1,405	-250	-1,552	-1,802
1980:												
I	54,708	-65,558	-10,850	20,846	-10,752	10,094	-922	-690	1,570	-798	-1,812	-2,610
II	54,710	-62,215	-7,505	16,641	-10,508	6,133	-994	-296	1,557	-1,105	-1,326	-2,431
III	56,288	-59,116	-2,828	19,113	-10,646	8,467	-632	-248	1,618	6,377	-1,477	4,900

¹ Excludes military grants.² Adjusted from Census data for differences in valuation, coverage, and timing.³ Fees and royalties from U.S. direct investments abroad or from foreign direct investments in the United States are excluded from investment income and included in other services, net.⁴ In concept, balance on goods and services is equal to net exports and imports in the national income and product accounts (and the sum of balance on current account and allocations of special drawing rights is equal to net foreign investment in the accounts), although the series differ because of different handling of certain items (gold, extraordinary military shipments, etc.), revisions, etc.

(See next page for continuation of table.)

TABLE B-99.—U.S. international transactions, 1946-80—Continued

(Millions of dollars; quarterly data seasonally adjusted, except as noted)

Year or quarter	U.S. assets abroad, net [increase/capital outflow (-)]				Foreign assets in the U.S., net [increase/capital inflow (+)]			Alloca- tions of special drawing rights (SDRs)	Statistical discrepancy	
	Total	U.S. official reserve assets ^a	Other U.S. Govern- ment assets	U.S. private assets	Total	Foreign official assets, total	Other foreign assets		Total (sum of the items with sign reversed)	Of which: Seasonal adjust- ment discrepan- cy
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	-5,537	607	-910	-5,234	2,705	765	1,939		-989	
1962	-4,175	1,535	-1,085	-4,624	1,911	1,270	641		-1,124	
1963	-7,270	378	-1,662	-5,966	3,217	1,986	1,231		-360	
1964	-9,559	171	-1,680	-8,049	3,643	1,660	1,983		-907	
1965	-5,715	1,225	-1,605	-5,335	742	134	607		-458	
1966	-7,319	570	-1,543	-6,345	3,661	-672	4,333		629	
1967	-9,758	53	-2,423	-7,387	7,379	3,451	3,928		-205	
1968	-10,977	-870	-2,274	-7,833	9,928	-774	10,703		438	
1969	-11,585	-1,179	-2,200	-8,206	12,702	-1,301	14,002		-1,516	
1970	-9,336	2,481	-1,589	-10,228	6,359	6,908	-550	867	-219	
1971	-12,474	2,349	-1,884	-12,939	22,970	26,879	-3,909	717	-9,779	
1972	-14,497	-4	-1,568	-12,925	21,461	10,475	10,986	710	-1,879	
1973	-22,874	158	-2,644	-20,388	18,388	6,026	12,362		-2,654	
1974	-34,745	-1,467	-366	-33,643	34,241	10,546	23,696		-1,620	
1975	-39,703	-849	-3,474	-35,380	15,670	7,027	8,643		5,753	
1976	-51,269	-2,558	-4,214	-44,498	36,518	17,693	18,826		10,367	
1977	-35,793	-375	-3,693	-31,725	50,741	36,575	14,167		-880	
1978	-61,191	732	-4,644	-57,279	64,096	33,293	30,804		11,354	
1979	-61,774	-1,133	-3,783	-56,858	37,575	-14,271	51,845	1,139	23,848	
1978:										
I	-15,048	187	-1,009	-14,226	18,204	15,422	2,783		3,015	121
II	-5,749	248	-1,257	-4,740	775	-5,273	6,049		9,076	732
III	-9,977	115	-1,386	-8,706	17,069	4,777	12,292		-3,926	-2,850
IV	-30,418	182	-991	-29,609	28,048	18,368	9,680		3,190	1,998
1979:										
I	-7,768	-3,585	-1,102	-3,081	2,201	-8,744	10,945	1,139	3,020	74
II	-15,300	322	-991	-14,631	6,407	-10,095	16,502		10,385	1,167
III	-25,215	2,779	-766	-27,228	24,941	5,789	19,152		-825	-3,641
IV	-13,492	-649	-925	-11,918	4,025	-1,221	5,246		11,269	2,400
1980:										
I	-12,711	-3,268	-1,467	-7,976	7,194	-7,215	14,409	1,152	6,975	-99
II	-25,712	502	-1,191	-25,023	7,949	7,775	174		20,194	1,460
III ^a	-20,196	-1,109	-1,320	-17,767	11,003	8,025	2,978		4,293	-4,022

^a Includes extraordinary U.S. Government transactions with India.^b Consists of gold, special drawing rights, convertible currencies, and the U.S. reserve position in the International Monetary Fund (IMF).

Note.—Quarterly data for U.S. official reserve assets and foreign assets in the United States are not seasonally adjusted.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-100.—U.S. merchandise exports and imports by principal end-use category, 1965-80

[Millions of dollars; quarterly data seasonally adjusted]

Year or quarter	Exports					Imports				
	Total	Agricultural	Nonagricultural			Total	Petroleum and products	Nonpetroleum		
			Total	Capital goods	Other goods			Total	Industrial supplies	Other goods
1965.....	26,461	6,305	20,156	8,052	12,104	21,510	2,034	19,476	9,123	10,353
1966.....	29,310	6,949	22,361	8,907	13,454	25,493	2,078	23,415	10,235	13,180
1967.....	30,666	6,453	24,213	9,934	14,279	26,866	2,091	24,775	9,956	14,819
1968.....	33,626	6,297	27,329	11,111	16,218	32,991	2,384	30,607	12,027	18,580
1969.....	36,414	6,096	30,318	12,369	17,949	35,807	2,649	33,158	11,798	21,360
1970.....	42,469	7,374	35,095	14,659	20,436	39,866	2,927	36,939	12,416	24,523
1971.....	43,319	7,831	35,488	15,372	20,116	45,579	3,650	41,929	13,794	28,135
1972.....	49,381	9,513	39,868	16,914	22,954	55,797	4,650	51,147	16,308	34,839
1973.....	71,410	17,978	53,432	21,999	31,433	70,499	8,415	62,084	19,634	42,450
1974.....	98,306	22,412	75,894	30,878	45,016	103,649	26,609	77,040	27,819	49,221
1975.....	107,088	22,242	84,846	36,639	48,207	98,041	27,017	71,024	24,013	47,011
1976.....	114,745	23,381	91,364	39,112	52,252	124,051	34,573	89,478	29,759	59,719
1977.....	120,816	24,331	96,485	39,767	56,718	151,689	44,983	106,706	35,670	71,036
1978.....	142,054	29,902	112,152	46,470	65,682	175,813	42,312	133,501	42,542	90,959
1979.....	182,055	35,413	146,642	58,153	88,489	211,524	60,011	151,513	49,929	101,584
1978:										
I.....	30,922	6,577	24,345	10,118	14,227	42,063	10,531	31,532	10,338	21,194
II.....	35,404	7,874	27,530	11,252	16,278	43,699	10,426	33,273	11,026	22,247
III.....	36,828	7,841	28,987	12,292	16,695	44,336	10,492	33,844	10,566	23,278
IV.....	38,900	7,610	31,290	12,808	18,482	45,715	10,863	34,852	10,612	24,240
1979:										
I.....	41,805	7,662	34,143	13,745	20,398	46,919	11,593	35,326	11,132	24,194
II.....	42,815	7,947	34,868	13,919	20,949	50,885	13,473	37,412	12,321	25,091
III.....	47,198	9,374	37,824	15,349	22,475	54,258	16,094	38,164	12,624	25,540
IV.....	50,237	10,430	39,807	15,140	24,667	59,462	18,851	40,611	13,852	26,759
1980:										
I.....	54,708	10,385	44,323	17,001	27,322	65,558	21,608	43,950	15,441	28,509
II.....	54,710	9,736	44,974	18,250	26,724	62,215	20,995	41,220	13,826	27,394
III.....	56,288	10,956	45,332	19,397	25,935	59,116	17,266	41,850	13,121	28,729

Note.—Data are on an international transactions basis and exclude military shipments.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-101.—U.S. merchandise exports and imports by area, 1973-80

[Millions of dollars]

Item	1973	1974	1975	1976	1977	1978	1979	1980 first 3 quarters ¹
Exports	71,410	98,306	107,088	114,745	120,816	142,054	182,055	220,941
Industrial countries	48,529	64,487	66,496	72,335	76,970	87,948	113,437	136,024
Canada	16,710	21,842	23,537	26,336	28,533	31,229	36,285	39,201
Japan	8,356	10,724	9,567	10,196	10,566	12,960	17,627	20,884
Western Europe	21,216	28,164	29,884	31,883	34,094	39,546	54,090	69,280
Australia, New Zealand, and South Africa	2,247	3,757	3,508	3,920	3,777	4,213	5,435	6,659
Other countries	20,834	32,082	37,343	38,287	40,951	50,213	62,624	81,504
OPEC ²	3,414	6,219	9,956	11,561	12,877	14,846	14,530	17,128
Other ³	17,420	25,863	27,387	26,726	28,074	35,367	48,094	64,376
Eastern Europe	2,047	1,737	3,249	4,123	2,895	3,893	5,994	3,413
Imports	70,499	103,649	98,041	*124,051	*151,689	*175,813	*211,524	*249,185
Industrial countries	48,985	61,092	55,973	67,488	79,228	99,151	112,286	126,576
Canada	17,694	22,392	21,710	26,475	29,645	33,552	38,708	41,241
Japan	9,665	12,414	11,257	15,531	18,565	24,541	26,255	30,771
Western Europe	19,774	24,267	20,764	23,003	28,226	36,618	41,829	48,232
Australia, New Zealand, and South Africa	1,852	2,019	2,242	2,479	2,792	4,440	5,494	6,332
Other countries	20,913	41,580	41,334	55,379	70,680	74,402	96,158	119,458
OPEC ²	5,097	17,234	18,897	27,409	35,778	33,286	45,035	56,400
Other ³	15,816	24,346	22,437	27,970	34,902	41,116	51,123	63,058
Eastern Europe	601	977	734	875	1,127	1,508	1,895	1,435

¹ First 3 quarters at seasonally adjusted annual rate; preliminary. Detail will not add to totals because of seasonal adjustment discrepancy and rounding.

² Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

³ Latin American Republics, other Western Hemisphere, and other countries in Asia and Africa, less members of OPEC and the International Monetary Fund.

⁴ Includes imports of nonmonetary gold from International Monetary Fund, not in area detail.

Note.—Data are on an international transactions basis and exclude military shipments.

Source: Department of Commerce, Bureau of Economic Analysis.

(Millions of dollars; monthly data seasonally adjusted)

Source: Department of Commerce (Bureau of the Census and International Trade Administration).

TABLE B-103.—*International investment position of the United States at year-end, selected years, 1970-79*

[Billions of dollars]

Type of investment	1970	1972	1974	1976	1977	1978	1979
Net international investment position of the United States	58.6	37.1	58.8	82.5	72.3	75.3	95.0
U.S. assets abroad	165.5	199.0	255.7	347.2	383.0	450.9	513.2
U.S. official reserve assets	14.5	13.2	15.9	18.7	19.3	18.7	18.9
Gold	11.1	10.5	11.7	11.6	11.7	11.7	11.2
Special drawing rights (SDRs) .....	.9	2.0	2.4	2.4	2.6	1.6	2.7
Reserve position in the International Monetary Fund (IMF)	1.9	.5	1.9	4.4	4.9	1.0	1.3
Foreign currency reserves .....	.6	.2	.0	.3	.0	4.4	3.8
Other U.S. Government assets	32.1	36.1	38.4	46.0	49.6	54.2	58.5
U.S. loans and other long-term assets	29.7	34.1	36.3	44.1	47.8	52.3	56.5
U.S. short-term assets other than reserves	2.5	2.0	2.1	1.9	1.8	1.9	1.9
U.S. private assets	118.8	149.7	201.5	282.4	314.1	378.0	435.8
Direct investments abroad (book value)	75.5	89.9	110.1	136.8	149.8	167.8	192.6
Foreign securities	21.0	27.6	28.2	44.2	49.4	53.4	56.7
Claims on foreigners reported by U.S. banks, not included elsewhere	13.8	20.7	46.2	81.1	92.6	130.7	156.6
Claims on unaffiliated foreigners reported by U.S. nonbanks	8.5	11.4	17.0	20.3	22.3	26.1	29.9
Foreign assets in the United States	106.8	161.8	196.9	264.7	310.6	375.5	418.2
Foreign official assets	26.1	63.2	79.8	105.6	141.9	174.8	160.3
U.S. Government securities ¹	17.7	52.9	58.1	74.0	106.8	130.9	108.3
Other U.S. Government liabilities	1.7	1.6	2.6	8.8	9.9	12.2	11.5
Liabilities reported by U.S. banks, not included elsewhere	6.7	8.5	18.4	17.2	18.0	23.3	30.5
Other official assets .....	.0	.2	.6	5.6	7.2	8.5	10.1
Other foreign assets	80.7	98.7	117.1	159.1	168.7	200.7	257.9
Direct investments in the United States (book value)	13.3	14.9	25.1	30.8	34.6	42.5	52.3
Liabilities reported by U.S. banks, not included elsewhere	22.7	21.2	41.8	53.5	60.2	77.9	110.5
U.S. Treasury securities	1.2	1.2	1.7	7.0	7.6	9.9	15.0
Other U.S. securities ²	34.7	50.7	34.9	54.8	52.9	55.4	61.9
Liabilities to unaffiliated foreigners reported by U.S. nonbanks	8.8	10.7	13.6	13.0	13.4	15.1	18.2

¹ Includes Treasury and agency issues of securities.² Corporate and other bonds and corporate stocks.

Note.—Gold is valued at SDR35 per ounce, throughout. The SDR value is converted to dollars at \$1/SDR before December 1971, at \$1.08571/SDR from December 1971 through January 1973, at \$1.20635/SDR from February 1973 through June 1974, and as measured by the basket valuation of the SDR beginning July 1974.

Source: Department of Commerce, Bureau of Economic Analysis.

TABLE B-104.—*World trade: Exports and imports, 1965, 1970, 1975, and 1977-80*

[Billions of U.S. dollars]

Area and country	1965	1970	1975	1977	1978	1979	1980 ¹
Exports, f.a.s. ²							
Developed countries ³	129.8	226.0	583.4	735.8	883.3	1,085.7	1,281.1
United States	27.5	43.2	107.6	121.2	143.7	181.8	222.4
Canada	8.5	16.7	34.1	43.5	48.4	58.2	65.9
Japan	8.5	19.3	55.7	81.1	98.3	102.3	128.7
European Community ⁴	64.8	113.0	298.4	382.3	462.3	577.6	677.9
France	10.2	18.1	53.1	65.0	79.4	100.7	115.0
West Germany	17.9	34.2	90.2	118.1	142.5	171.9	196.6
Italy	7.2	13.2	34.8	45.3	56.1	72.2	81.6
United Kingdom	13.8	19.6	44.5	58.2	71.7	91.0	117.4
Other developed countries	20.5	33.7	87.7	107.6	130.6	165.8	186.2
Developing countries	35.0	53.8	203.8	282.5	297.0	404.8	535.1
OPEC ⁵	10.6	17.6	111.7	148.5	144.4	211.0	292.6
Other	24.5	36.2	92.1	134.0	152.5	193.8	242.5
Communist countries ⁶	23.2	34.7	90.4	115.4	137.2	170.6	202.1
U.S.S.R.	8.2	12.8	33.4	45.2	52.4	64.8	76.0
Eastern Europe	11.8	18.2	45.3	56.4	65.6	77.9	87.4
China	2.0	2.1	7.2	8.1	10.1	13.7	18.5
TOTAL	188.0	314.5	877.6	1,133.7	1,317.5	1,661.1	2,018.3
Imports, c.i.f. ⁷							
Developed countries ³	136.8	235.7	610.8	794.9	917.4	1,173.8	1,391.0
United States	23.2	42.4	103.4	157.6	183.1	218.9	256.7
Canada	8.7	14.3	36.2	42.3	46.5	56.8	63.0
Japan	8.2	18.9	57.8	71.3	79.9	109.8	140.8
European Community ⁴	69.3	116.9	301.9	390.2	463.0	604.5	737.6
France	10.4	19.1	54.0	70.5	81.8	107.0	133.6
West Germany	17.6	29.9	74.9	101.5	121.8	159.7	193.1
Italy	7.4	15.0	38.4	48.1	56.5	78.0	100.0
United Kingdom	16.1	22.0	54.2	64.5	78.6	102.9	120.6
Other developed countries	27.5	43.3	111.5	133.6	144.9	183.7	192.9
Developing countries	36.8	56.0	189.5	248.5	292.0	346.1	442.0
OPEC ⁵	6.4	9.9	52.7	86.0	97.1	102.8	134.3
Other	30.4	46.0	136.8	162.5	194.9	243.3	307.7
Communist countries ⁶	22.6	34.2	100.8	115.3	144.1	170.6	198.2
U.S.S.R.	8.1	11.7	37.1	40.9	50.8	57.8	67.0
Eastern Europe	11.6	18.5	51.3	62.3	72.6	83.0	92.9
China	1.8	2.2	7.4	7.1	11.2	15.6	18.5
TOTAL	196.2	325.9	901.1	1,158.7	1,353.5	1,690.5	2,031.2

¹ Preliminary estimates.² Free-alongside-ship value.³ Includes the OECD countries, South Africa, and non-OECD Europe.⁴ Includes Belgium-Luxembourg, Denmark, Ireland, and the Netherlands, not shown separately.⁵ Includes Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Oman, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.⁶ Includes North Korea, Vietnam, Albania, Cuba, Mongolia, and Yugoslavia, not shown separately.⁷ Cost, insurance, and freight value, except Eastern Europe (except Hungary) and U.S.S.R., which are f.o.b. (free on board).

Sources: International Monetary Fund, Organization for Economic Cooperation and Development, and Council of Economic Advisers.

TABLE B-105.—*World trade balance and current account balances, 1965, 1970, 1975, and 1977-80*

[Billions of U.S. dollars]

Area and country	1965	1970	1975	1977	1978	1979	1980 ¹
World trade balance²							
Developed countries ³	-7.0	-9.7	-27.4	-59.1	-34.0	-88.1	-109.9
United States.....	4.3	.8	4.2	-36.3	-39.4	-37.1	-34.3
Canada.....	-2	2.5	-2.1	1.3	1.9	1.4	2.9
Japan.....	.3	.4	-2.1	9.7	18.4	-7.5	-12.1
European Community ⁴	-4.5	-3.9	-3.5	-7.9	-.7	-26.9	-59.7
France.....	-.2	-1.0	-.8	-5.5	-2.4	-6.3	-18.6
West Germany.....	.3	4.3	15.2	16.6	20.7	12.2	3.5
Italy.....	-.2	-1.8	-3.6	-2.8	-.4	-5.7	-18.4
United Kingdom.....	-2.3	-2.4	-9.6	-6.3	-6.9	-11.9	-3.2
Other developed countries.....	-6.9	-9.5	-23.8	-26.0	-14.2	-17.9	-6.7
Developing countries.....	-1.8	-2.1	14.3	34.0	4.9	58.7	93.1
OPEC ⁵	4.2	7.7	59.0	62.5	47.4	108.2	158.3
Other.....	-6.0	-9.8	-44.7	-28.5	-42.4	-49.5	-65.2
Communist countries ⁶.....	.5	.5	-10.4	.1	-6.9	.0	3.9
U.S.S.R.....	.1	1.1	-3.7	4.3	1.6	7.0	9.0
Eastern Europe.....	.2	-.4	-6.0	-5.9	-7.0	-5.1	-5.5
China.....	.2	-.2	-.2	1.0	-1.1	-1.9	.0
TOTAL ⁷	-8.2	-11.4	-23.5	-25.0	-36.0	-29.4	-12.9
Current account balances⁸							
OECD.....	3.8	6.8	1.0	-24.9	9.0	-35.5	-73.5
United States.....	5.4	2.3	18.3	-14.1	-14.3	-.8	5.5
Canada.....	-1.1	1.1	-4.7	-4.0	-4.4	-4.4	-3.5
Japan.....	.9	2.0	-.7	10.9	16.5	-8.8	-13.3
European Community ⁴	1.1	3.4	1.2	1.1	15.8	-13.5	-38.5
France.....	.4	.1	-.1	-3.0	3.7	1.2	-7.8
West Germany.....	-1.6	.9	4.0	4.2	8.7	-5.5	-17.3
Italy.....	2.2	1.1	-.8	2.5	6.2	5.1	-5.3
United Kingdom.....	-.1	1.9	-3.7	-.5	1.2	-3.9	4.5
Developing countries.....		-8.5	-3.0	16.5	-18.0	31.0	66.0
OPEC ⁵		-.5	27.0	29.0	4.5	68.0	116.0
Other.....		-8.0	-30.0	-12.5	-22.5	-37.0	-50.0
Other ⁹		-2.9	-18.0	-8.5	-9.5	-3.0	-5.0
TOTAL.....		-4.6	-20.0	-16.9	-18.5	-7.5	-12.5

¹ Preliminary estimates.² Exports f.a.s. (free alongside ship) less imports c.i.f. (cost, insurance, and freight).³ Includes the OECD countries, South Africa, and non-OECD Europe.⁴ Includes Belgium-Luxembourg, Denmark, Ireland, and the Netherlands, not shown separately.⁵ Includes Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Oman, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.⁶ Includes North Korea, Vietnam, Albania, Cuba, Mongolia, and Yugoslavia, not shown separately.⁷ Asymmetries arise in global payments aggregations because of discrepancies in coverage, classification, timing, and valuation in the recording of transactions by the countries involved.⁸ OECD basis.⁹ Includes Communist countries and non-OECD developed countries.

Sources: International Monetary Fund, Organization for Economic Cooperation and Development, and Council of Economic Advisers.

TABLE B-106.—International reserves, selected years, 1952-80

(Millions of SDRs; end of period)

Area and country	1952	1962	1972	1977	1978	1979	1980
							November
All countries ¹	49,303	62,850	146,551	261,988	279,824	302,901	349,380
Industrial countries ²	38,583	52,536	110,285	149,710	174,089	180,617	207,160
United States.....	24,714	17,220	12,112	15,965	15,031	15,170	20,618
Canada.....	1,944	2,561	5,572	3,793	3,507	2,951	2,717
Australia.....	920	1,168	5,656	1,962	1,856	1,359	1,858
Japan.....	1,101	2,021	16,916	19,149	25,714	15,667	19,888
New Zealand.....	183	251	768	366	348	344	332
Austria.....	116	1,081	2,505	3,493	4,611	3,832	4,518
Belgium.....	1,133	1,753	3,564	4,742	4,535	5,307	7,485
Denmark.....	150	256	787	1,375	2,471	2,514	2,621
Finland.....	132	237	664	469	972	1,204	1,529
France.....	686	4,049	9,224	8,392	10,692	16,212	25,251
Germany.....	960	6,957	21,908	32,713	41,360	43,224	39,222
Iceland.....	8	32	78	82	106	125	133
Ireland.....	318	359	1,038	1,952	2,064	1,698	1,914
Italy.....	722	4,068	5,605	9,574	11,436	16,149	20,270
Netherlands.....	953	1,944	4,407	6,640	5,823	7,302	10,453
Norway.....	164	304	1,220	1,845	2,236	3,241	4,865
Spain.....	134	1,045	4,618	5,425	8,270	10,550	.....
Sweden.....	504	802	1,453	3,019	3,375	2,720	2,938
Switzerland.....	1,667	2,919	6,961	11,385	16,549	15,391	12,890
United Kingdom.....	1,956	3,308	5,201	17,335	13,100	15,626	17,471
Oil-exporting countries.....	1,699	2,030	10,042	62,155	46,219	56,287	72,849
Algeria.....	84	186	454	1,579	1,714	2,213	3,039
Indonesia.....	314	108	531	2,071	2,024	3,093	4,472
Iran.....	177	211	885	10,098	9,327	11,682	.....
Iraq.....	131	193	720	5,759	.....	.....	.....
Kuwait.....	50	97	335	2,461	2,008	2,268	3,208
Libya.....	.....	96	2,694	4,026	3,237	4,902	.....
Nigeria.....	.....	289	346	3,506	1,471	4,233	7,902
Oman.....	500	.....	149	348	304	445	725
Qatar.....	.....	.....	26	140	171	228	.....
Saudi Arabia.....	.....	268	2,304	24,726	14,897	14,791	19,441
United Arab Emirates.....	.....	.....	.....	679	643	1,107	1,548
Venezuela.....	443	583	1,594	6,762	5,031	5,931	5,558
Non-oil developing countries.....	8,488	8,172	25,267	48,933	58,353	64,798	67,593
Africa.....	1,202	1,635	3,092	3,817	3,786	4,160	4,496
Asia.....	3,407	2,549	6,640	17,035	19,040	21,144	23,480
Europe.....	967	1,346	5,639	5,554	6,410	5,652	5,642
Middle East.....	826	940	2,402	5,857	6,930	7,443	8,478
Western Hemisphere.....	2,087	1,700	7,494	16,672	22,188	26,401	25,497

¹ Includes Taiwan, not shown in area detail.² Includes Cuba.³ Includes Luxembourg.

Note.—International reserves is comprised of monetary authorities' holdings of gold, special drawing rights (SDRs), reserve positions in the International Monetary Fund, and foreign exchange. Data exclude U.S.S.R., other Eastern European countries, Mainland China, and Cuba (after 1960).

U.S. dollars per SDR (end of period) are: 1952 and 1962—1.00000; 1972—1.08571; 1977—1.21471; 1978—1.30279; 1979—1.31733; and November 1980—1.27672.

Source: International Monetary Fund, "International Financial Statistics."

TABLE B-107.—*Growth rates in real gross national product, 1960-80*

[Percent change]

Area and country	1960-73 annual average	1974	1975	1976	1977	1978	1979	1980 ¹	U.S. dollar value in 1978 (billions) ²
OECD countries.....	4.8	0.7	-0.5	5.3	3.7	3.9	3.3	1.0	6,827
United States.....	4.2	-.6	-1.1	5.4	5.5	4.8	3.2	-.2	2,369
Canada.....	5.4	3.6	1.2	5.5	2.2	3.4	2.8	-.5	219
Japan.....	10.5	-.6	1.5	6.5	5.4	6.0	5.9	5.0	1,030
European Community ³	4.7	1.7	-1.3	5.2	2.3	3.2	3.5	1.0	2,390
France.....	5.7	3.2	.2	5.2	2.8	3.6	3.3	1.8	570
West Germany.....	4.8	.4	-1.8	5.3	2.6	3.5	4.5	1.8	760
Italy.....	5.2	4.1	-3.6	5.9	1.9	2.6	5.0	3.8	319
United Kingdom.....	3.2	-1.2	-.8	4.2	1.0	3.6	1.5	-2.3	394
Other OECD ⁴	5.4	3.5	.2	3.9	2.0	2.4	2.7	1.5	819
Communist countries ⁵	5.2	4.0	3.2	3.6	4.6	5.0	2.2	2.2	2,267
U.S.S.R.....	5.0	3.7	1.7	4.7	3.5	3.4	.6	1.4	1,263
Eastern Europe.....	4.1	4.7	4.1	4.3	3.4	3.3	1.7	1.6	392
China.....	7.1	3.9	6.9	-.2	8.3	11.5	7.0	5.0	475
Developing countries.....									1,713
Oil exporting ⁶	⁷ 9.0	8.0	-.3	12.1	6.2	2.7	2.9		449
Other.....	⁷ 5.9	5.5	4.4	5.5	5.1	5.0	4.7		1,264
TOTAL.....									10,807

¹ Preliminary estimates.² Estimates based on conversion at average rates of exchange for 1979, except for those of the Communist countries, which were converted at U.S. purchasing power equivalents.³ Includes Belgium-Luxembourg, Denmark, Ireland, and the Netherlands, not shown separately.⁴ Growth rates are for OECD countries other than the Big Seven (United States, Canada, Japan, France, West Germany, Italy, and the United Kingdom).⁵ Includes North Korea, Vietnam, Albania, Cuba, Mongolia, and Yugoslavia, not shown separately.⁶ Includes Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Oman, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.⁷ 1967-72 annual average.

Note.—For Italy, the United Kingdom, France, and the developing countries, data relate to real gross domestic product.

Sources: Department of Commerce, International Monetary Fund, Organization for Economic Cooperation and Development (OECD), and Council of Economic Advisers.

TABLE B-108.—Industrial production and unemployment rate, major industrial countries, 1960-80

[Quarterly data seasonally adjusted]

Year or quarter	United States	Canada	Japan	European Community ¹	France	West Germany	Italy	United Kingdom
Industrial production (1967=100) ²								
1960.....	66.2	63.1	43.0	74.7	70	78.4	59.2	84.4
1961.....	66.7	65.6	51.2	78.1	73	82.8	65.5	84.3
1962.....	72.2	71.2	55.4	81.3	78	86.1	71.9	85.1
1963.....	76.5	75.7	61.7	84.8	86	88.9	78.4	88.4
1964.....	81.7	82.6	71.4	91.0	90	96.6	79.2	95.0
1965.....	89.8	89.7	74.2	94.7	93	102.1	82.8	97.7
1966.....	97.8	96.2	83.8	98.4	98	103.0	93.3	99.2
1967.....	100.0	100.0	100.0	100.0	100	100.0	100.0	100.0
1968.....	106.3	106.4	115.2	107.4	104	109.2	106.4	106.7
1969.....	111.1	113.7	133.4	117.6	114	123.2	110.5	110.3
1970.....	107.8	115.3	151.8	123.3	120	131.1	117.6	110.9
1971.....	109.6	121.5	155.7	126.1	128	133.6	117.5	110.6
1972.....	119.7	130.6	167.0	131.7	135	138.7	122.7	113.2
1973.....	129.8	143.5	190.5	141.4	145	147.7	134.6	123.0
1974.....	129.3	148.5	183.1	142.3	148	145.1	140.6	120.0
1975.....	117.8	139.6	163.9	132.8	139	137.1	127.6	114.3
1976.....	130.5	147.3	182.0	142.6	149	149.1	143.5	117.4
1977.....	138.2	150.5	189.7	145.9	152	152.7	145.1	123.0
1978.....	146.1	156.7	201.1	149.4	155	155.3	147.9	126.8
1979.....	152.5	164.0	217.7	156.7	161	163.2	157.6	131.4
1979:								
I.....	152.7	163.0	210.7	153.1	158	159	157.1	129.4
II.....	152.3	162.8	215.2	155.9	159	163	152.1	134.4
III.....	152.6	165.7	219.3	157.1	167	165	154.3	131.0
IV.....	152.5	164.9	225.3	158.4	165	166	167.2	131.0
1980:								
I.....	152.5	163.9	234.5	159.2	165	169	172.3	127.7
II.....	144.6	159.6	234.5	157.4	160	165	168.7	123.9
III.....	142.0	159.4	228.8		162	161	156.3	120.0
Unemployment rate (percent) ³								
1960.....	5.5	7.0	1.7		1.8	1.1	3.8	2.2
1961.....	6.7	7.1	1.5		1.6	.6	3.2	2.0
1962.....	5.5	5.9	1.3		1.5	.6	2.8	2.8
1963.....	5.7	5.5	1.3		1.3	.5	2.4	3.4
1964.....	5.2	4.7	1.2		1.5	.4	2.6	2.5
1965.....	4.5	3.9	1.2		1.6	.3	3.5	2.2
1966.....	3.8	3.4	1.4		1.9	.3	3.8	2.3
1967.....	3.8	3.8	1.3		2.0	1.3	3.4	3.4
1968.....	3.6	4.5	1.2		2.6	1.4	3.4	3.3
1969.....	3.5	4.4	1.1		2.4	.9	3.3	3.0
1970.....	4.9	5.7	1.2		2.6	.8	3.1	3.1
1971.....	5.9	6.2	1.3		2.8	.8	3.1	3.7
1972.....	5.6	6.2	1.4		2.9	.8	3.6	4.1
1973.....	4.9	5.5	1.3		2.8	.8	3.4	2.9
1974.....	5.6	5.3	1.4		3.0	1.7	2.8	2.9
1975.....	8.5	6.9	1.9		4.3	3.6	3.2	4.1
1976.....	7.7	7.1	2.0		4.7	3.6	3.6	5.5
1977.....	7.0	8.1	2.0		5.0	3.8	3.4	6.2
1978.....	6.0	8.4	2.3		5.4	3.7	3.7	6.1
1979.....	5.8	7.5	2.1		6.2	3.3	4.3	5.8
1980.....	7.1							
1979:								
I.....	5.8	7.9	2.1		5.9	3.5	3.9	6.1
II.....	5.7	7.6	2.1		6.2	3.3	3.9	5.7
III.....	5.7	7.1	2.1		6.4	3.2	3.9	5.6
IV.....	5.9	7.3	2.1		6.3	3.1	5.5	5.8
1980:								
I.....	6.2	7.4	1.9		6.5	3.1	6.0	6.2
II.....	7.3	7.7	2.0		6.8	3.2	5.9	6.8
III.....	7.5	7.6	2.1		6.8	3.4	6.0	7.7
IV.....	7.5							

¹ Consists of Belgium-Luxembourg, Denmark, France, Ireland, Italy, Netherlands, United Kingdom, and West Germany.² All data exclude construction.³ Unemployment rates adjusted to U.S. concepts. Data for United Kingdom exclude Northern Ireland.

Sources: Department of Commerce (International Trade Administration) and Department of Labor (Bureau of Labor Statistics).

TABLE B-109.—Consumer prices and hourly compensation, major industrial countries, 1960-80

[1967=100]

Year or quarter	United States	Canada	Japan	France	West Germany	Italy	United Kingdom
Consumer prices							
1960	88.7	85.9	68.3	178.0	82.9	74.1	79.0
1961	89.6	86.7	71.8	180.6	84.8	75.7	81.6
1962	90.6	87.7	75.7	85.4	87.4	79.2	85.1
1963	91.7	89.2	82.5	89.5	89.9	85.1	86.8
1964	92.9	90.9	85.8	92.5	92.0	90.1	89.6
1965	94.5	93.1	91.6	94.8	95.0	94.2	93.9
1966	97.2	96.5	96.3	97.4	98.4	96.4	97.6
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	104.2	104.0	105.3	104.5	101.6	101.4	104.8
1969	109.8	108.8	110.9	111.3	103.5	104.1	110.3
1970	116.3	112.4	119.3	117.1	107.1	109.2	117.4
1971	121.3	115.6	126.5	123.5	112.7	114.4	128.5
1972	125.3	121.2	132.3	131.1	119.0	121.0	137.7
1973	133.1	130.3	147.9	140.7	127.2	134.0	150.2
1974	147.7	144.5	184.0	160.0	136.1	159.7	174.3
1975	161.2	160.1	205.8	178.9	144.2	186.8	216.5
1976	170.5	172.1	224.9	196.1	150.4	218.1	252.4
1977	181.5	185.9	243.0	214.5	155.9	255.2	292.4
1978	195.4	202.4	252.3	233.9	160.2	286.2	316.6
1979	217.4	221.0	261.3	259.1	166.6	328.5	359.0
1979:							
I	207.0	213.4	254.0	247.3	163.6	309.5	335.6
II	214.1	218.9	260.5	254.3	165.9	321.0	347.9
III	221.1	223.3	263.1	262.5	168.0	332.2	371.2
IV	227.6	228.4	267.6	270.0	169.3	350.4	381.6
1980:							
I	236.5	233.5	273.2	280.3	172.5	373.5	399.6
II	245.0	240.0	282.1	289.0	175.7	388.1	422.9
III	249.6	246.8	285.3	298.3	176.9	403.9	431.9
Hourly compensation ²							
1960	78.0	80.3	43.4	56.0	51.8	46.8	65.9
1961	80.2	78.9	50.3	61.7	60.5	51.8	70.8
1962	83.3	77.0	57.5	67.9	68.8	61.1	74.6
1963	85.8	79.0	64.1	75.0	73.6	72.3	77.9
1964	89.3	82.0	72.0	80.7	79.5	80.4	83.2
1965	91.1	86.2	81.1	86.9	85.7	86.0	91.2
1966	95.2	93.0	89.2	92.5	94.3	89.8	98.7
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	107.1	107.4	116.9	112.6	105.9	106.8	93.3
1969	114.2	115.5	139.3	111.6	117.3	121.1	101.7
1970	122.3	128.2	165.9	117.2	145.9	145.0	115.3
1971	129.9	142.6	197.4	131.3	173.1	169.7	134.3
1972	136.6	156.6	261.2	159.9	210.8	206.0	154.4
1973	146.5	170.5	359.9	208.5	288.3	261.7	167.8
1974	161.7	200.6	439.5	231.3	340.9	291.6	197.8
1975	181.1	221.4	505.5	310.7	404.0	374.7	247.5
1976	196.1	261.0	542.6	319.0	422.9	352.7	235.6
1977	212.7	273.2	661.8	353.0	503.6	394.3	253.3
1978	229.9	273.8	904.2	435.2	631.6	469.9	321.8
1979	250.8	292.9	918.2	524.5	736.0	582.0	416.2

¹ Data for 1960 and 1961 are for Paris only.² Hourly compensation in manufacturing, U.S. dollar basis. Data relate to all employed persons (wage and salary earners and the self-employed) in the United States and Canada and to all employees (wage and salary earners) in the other countries. For France and United Kingdom compensation adjusted to include changes in employment taxes that are not compensation to employees, but are labor costs to employers.

Data for United States have not been revised to incorporate benchmark revisions in the national income and product accounts.

Sources: Department of Commerce (International Trade Administration) and Department of Labor (Bureau of Labor Statistics).

TABLE B-110.—*Summary of major U.S. Government net foreign assistance, July 1, 1945 to December 31, 1979*

[Millions of dollars]¹

Type and geographic distribution	Yearly average or calendar year				
	1945-49 ²	1950-54	1955-59	1960-64	1965-69
Total, net.....	5,540	5,059	4,772	4,664	5,899
Investment in 6 international financial institutions ³	141		7	124	81
Under assistance programs, net.....	5,399	5,059	4,764	4,540	5,818
Net new military grants.....	325	2,462	2,438	1,594	2,190
Gross new grants.....	340	2,494	2,451	1,629	2,196
Less: Reverse grants and returns.....	15	32	14	35	5
Other grants, credits, and other assistance (through net accumulation of foreign currency claims), net.....	5,074	2,597	2,327	2,946	3,628
Net new economic and technical aid grants ⁴	3,312	2,406	1,710	1,850	1,776
Gross new grants.....	3,486	2,512	1,759	1,872	1,780
Less: Reverse grants and returns.....	174	106	48	22	4
Net new credits ⁵	1,762	148	210	871	1,950
New credits.....	1,986	544	827	1,843	3,082
Less: Principal collections.....	224	396	617	972	1,132
Other assistance (through net accumulation of foreign currency claims) ⁶		42	407	225	-98
Currency claims acquired.....		51	965	1,230	814
Sales of farm products.....		51	963	1,186	691
Second-stage operations ⁷			2	44	122
Less: Currencies disbursed.....		9	558	1,005	912
Economic grants and credits to purchasing country.....		7	413	807	716
Other uses.....		2	145	198	196
Geographic distribution of net nonmilitary assistance					
Developing countries, ⁸ net total.....	904	1,032	2,211	3,316	3,611
Net new economic and technical aid grants.....	752	772	1,470	1,817	1,765
Net new credits.....	152	240	386	1,310	1,926
Other assistance (through net accumulation of foreign currency claims).....		20	355	189	-80
Developed countries, ⁸ net total.....	4,170	1,564	116	-371	17
Net new economic and technical aid grants.....	2,560	1,634	240	32	11
Net new credits.....	1,610	-92	-176	-439	24
Other assistance (through net accumulation of foreign currency claims).....		22	52	36	-18

¹ Negative figures (—) occur when the total of grant returns, principal repayments, and/or foreign currencies disbursed by the Government exceeds new grants and new credits utilized and/or acquisitions of foreign currencies through new sales of farm products.

² July 1, 1945, through December 31, 1949. Where data are available, period starts from V-J Day (September 2, 1945). Yearly average is for 4½ years.

³ Includes paid-in capital subscriptions and contributions to the special funds of the African Development Fund, Asian Development Bank, Inter-American Development Bank, International Bank for Reconstruction and Development, International Development Association, and International Finance Corporation.

⁴ Net new grants are not adjusted for settlements of postwar relief and other grants under agreements, and net new credits exclude prior grants converted into credits. Repayments on these settlements are included in net new credits.

⁵ Outstanding credits on December 31, 1979, totaled \$48,587 million, representing net credits extended since organization of Export-Import Bank, February 12, 1934, less chargeoffs and net adjustments due to exchange rates (\$1,579 million), and excluding World War I debts. The amount repayable in dollars at U.S. Government option was \$46,185 million; the remainder was repayable in foreign currencies, commodities, or services, at the option of the borrowers.

(See next page for continuation of table.)

TABLE B-110.—*Summary of major U.S. Government net foreign assistance, July 1, 1945 to December 31, 1979—Continued*

[Millions of dollars]¹

Type and geographic distribution	Yearly average or calendar year					
	1970-74	1975	1976	1977	1978	1979 ²
Total, net.....	7,146	8,676	7,931	6,741	7,998	7,721
Investment in 6 international financial institutions ³	332	654	1,102	870	867	551
Under assistance programs, net.....	6,814	8,022	6,830	5,871	7,131	7,169
Net new military grants.....	3,310	2,891	1,339	766	817	910
Gross new grants.....	3,314	2,895	1,342	769	821	913
Less: Reverse grants and returns.....	5	4	3	3	4	3
Other grants, credits, and other assistance (through net accumulation of foreign currency claims), net.....	3,504	5,130	5,490	5,105	6,314	6,260
Net new economic and technical aid grants ⁴	2,486	2,247	2,268	2,283	2,676	3,006
Gross new grants.....	2,534	2,250	2,274	2,283	2,676	3,006
Less: Reverse grants and returns.....	48	2	6			
Net new credits ^{4,5}	1,190	2,853	3,275	2,861	3,691	3,323
New credits.....	3,836	5,298	5,835	5,546	6,599	7,045
Less: Principal collections.....	2,646	2,444	2,559	2,685	2,908	3,723
Other assistance (through net accumulation of foreign currency claims) ⁶	-171	30	-54	-39	-52	-69
Currency claims acquired.....	742	189	129	175	124	127
Sales of farm products.....	106	5	(*)	(*)	(*)	(*)
Second-stage operations ⁷	635	184	128	175	124	127
Less: Currencies disbursed.....	913	159	182	214	177	196
Economic grants and credits to purchasing country.....	709	21	42	16	17	22
Other uses.....	204	138	140	198	160	175
Geographic distribution of net nonmilitary assistance						
Developing countries, ⁸ net total.....	3,614	5,021	5,332	5,293	6,236	6,473
Net new economic and technical aid grants.....	2,529	2,249	2,268	2,281	2,663	2,987
Net new credits.....	1,234	2,715	3,094	3,018	3,602	3,531
Other assistance (through net accumulation of foreign currency claims).....	-149	58	-31	-6	-29	-45
Developed countries, ⁸ net total.....	-110	109	158	-188	78	-213
Net new economic and technical aid grants.....	-44	-1	(*)	2	12	19
Net new credits.....	-44	138	181	-157	89	-208
Other assistance (through net accumulation of foreign currency claims).....	-22	-28	-23	-33	-23	-24

¹ Equivalent value of currencies still available to be used, including some funds advanced from foreign governments and after loss by exchange rate fluctuations (\$1,404 million), was \$436 million on December 31, 1979.

² Includes foreign currencies acquired from triangular trade operations and principal and interest collections on credits, originally extended under Public Law 83-480, which—since enactment of Public Law 87-128—are available for the same purposes as Public Law 83-480 currencies.

³ Developed countries include Australia, Canada, Japan, New Zealand, Republic of South Africa, and all countries in Europe except Cyprus, Gibraltar, Greece, Malta, Portugal, Spain, Turkey, and Yugoslavia. Developing countries include all other countries. This classification is on the basis of the standard list of less developed countries used by the Development Assistance Committee of the Organization for Economic Cooperation and Development.

⁴ Less than plus or minus \$500,000.

Source: Department of Commerce, Bureau of Economic Analysis, based on information made available by operating agencies.

