

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



LETTER OF TRANSMITTAL

COUNCIL OF ECONOMIC ADVISERS,  
*Washington, D.C., January 30, 1971.*

THE PRESIDENT:

SIR: The Council of Economic Advisers herewith submits its Annual Report, February 1971, in accordance with Section 4(c) (2) of the Employment Act of 1946.

Respectfully,



PAUL W. McCRACKEN,  
*Chairman.*



HENDRIK S. HOUTHAKKER.



HERBERT STEIN.



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## A Quarter Century of the Employment Act of 1946

“WE MEET TO CONSIDER what I profoundly believe to be as important a proposal as any before the Congress within my memory.” With these words Senator Wagner of New York, on July 30, 1945, convened the subcommittee of the Senate Banking and Currency Committee to begin hearings on S. 380, “The Full Employment Act of 1945.” In February 1946, a quarter of a century ago this month, President Truman signed into law the “Employment Act of 1946.” The 25th anniversary of that Act provides a useful opportunity to look at the road that we have been traveling and where we may be going.

The Employment Act of 1946 made two major contributions to the management of economic policy. Section 2 explicitly declares the objectives of national economic policy, the most familiar passage of that section being the last eight words: “to promote maximum employment, production, and purchasing power.” More than a hundred other words in this one-sentence statement concern national economic objectives and they are all important. Economic programs and policies, for example, are to be consistent with “other essential considerations of national policy” and all are to be carried out by means “calculated to foster and promote free competitive enterprise and the general welfare. . . .” While the closing words are the most widely quoted of Section 2, the framers of the Act did not ignore the complex nature of our economic objectives and the fact that we must strive for an optimum balance among competing objectives, since the single-minded pursuit of one would inevitably mean sacrifices elsewhere.

The Employment Act of 1946 also provided for some additions to the structure and activities of Government. It created the Joint Economic Committee of the Congress as well as the Council of Economic Advisers in the Executive Office of the President. During the quarter of a century that this structure has been in operation, 58 Members of the Senate and House (including the present Committee members) have served on the Joint Economic Committee. Mr. Patman of Texas, alternating Chairman of the Committee, played a major role and was floor manager for the bill in the House; and Senator Fulbright of Arkansas, a present member of the Joint Economic Committee, was a member of Senator Wagner’s subcommittee that conducted the initial hearings. Two of the present members have served on the Joint Economic Committee since its inception. During

this period 25 of the Nation's economists have served as Members of the Council of Economic Advisers under five Presidents. There have been eight Chairmen of the Council, five of whom had previously served as Members.

Have this structure and the operations that have evolved within it made any significant impact on policy? Considering their nature, this is a reasonable question. The Joint Economic Committee does not have legislative functions: proposed legislation that deals with the building blocks of economic policy is handled by other committees of the Congress. The Council of Economic Advisers is one of the smallest agencies in the Federal Government. It advises; it does not manage. On almost any issue of economic policy another senior official of the Administration will have immediate responsibilities—the Secretary of the Treasury for taxes, the Secretary of Agriculture for farm policy, the Director of the Office of Management and Budget for expenditure policy.

Even so the Joint Economic Committee and the Council of Economic Advisers have clearly influenced Government policy. To some extent this result was planned by those who framed the Act. They did not leave entirely to chance and the evolution of experience the responsibilities for implementing Section 2. They also added Sections 3, 4, and 5, which set up some quite explicit responsibilities. They call, for example, on the President to transmit each year an economic report that sets forth such matters as current and foreseeable trends in employment, production, and purchasing power and outlines a program for carrying out the policy declared in Section 2. They direct the Council, among other things, "to appraise the various programs and activities of the Federal Government in the light of the policy declared in Section 2 for the purpose of determining the extent to which such programs and activities are contributing, and the extent to which they are not contributing, to the achievement of such policy and to make recommendations to the President with respect thereto. . . ." They call on the Joint Economic Committee to make a continuing study of programs and their coordination and to report to the Congress. And the Act calls for cooperation among all groups in our society in attaining these objectives.

Within this general framework a substantial complex of activities has emerged. For one thing the Joint Economic Committee has come to be one of the major, ongoing, national seminars on economic policy. Witnesses at its hearings include Government officials, a wide range of scholars from the universities, leaders of unions and businesses, and students of economic policy from abroad. The membership of this Committee includes chairmen and senior members of major legislative committees; and the published *Proceedings of Hearings* and other Committee publications have had a marked influence on national thinking about public policy and have increased the understanding in government and public circles of the problems and issues of economic policy and economic performance.

The Council of Economic Advisers has also had a pervasive influence in shaping policy. Through it the discipline of economic thinking has been introduced at a level where it directly affects decisions. While Government agencies have long had economists, the Council of Economic Advisers is an agency in which economists are the principals. Though small, it reports directly to the President. And having no particular constituency it can look at the broader public interest. The Council assists in the preparation of the President's *Economic Report*, which has become the major statement of national economic developments, programs, and policies. The requirement to submit an annual economic report subjects the Administration to the discipline of specifying its targets and appraising the adequacy of its policies for reaching the targets.

Have the results of efforts by these two bodies shown up in the performance of the economy during this quarter of a century? In employment the performance has been reasonably good. The unemployment rate during the past 25 years has averaged 4.6 percent, and the highest yearly rate was 6.8 percent in 1958. In the 25 years before the war, ending with 1940, the average unemployment rate was 10.9 percent, and its peak was 24.9 percent in 1933. This 25-year period includes the Great Depression, however, which dominates the record. If we look at the quarter of a century before the Great Depression, ending with 1929, the average was 4.7 percent, the highest unemployment rate was 11.7 percent in 1921, and in three other years (1908, 1914, and 1915) the 1958 rate was exceeded. This suggests that we have not appreciably reduced the incidence of small departures from maximum employment but that we have reduced the incidence of large departures, which is just what one would expect aggregate economic policy to be able to do.

During the quarter of a century since World War II, the goods and services made available to each consumer increased by 62 percent in real terms, and our stock of productive capital has increased by close to \$800 billion (in 1970 prices). In the quarter of a century ending with 1929 the per capita output of goods and services produced grew about 50 percent, somewhat below our postwar performance.

A recurring question throughout these years has been whether the Employment Act of 1946 has caused an imbalance in our management of economic policy by lessening the attention paid to price stability. While Section 2 recognizes that "other essential considerations of national policy" must be weighed, there is no explicit recognition of a stable price level as an objective of economic policy. It is clear both from policies and statements about policies that all Administrations have considered a reasonably stable price level to be an important objective of policy, and such stability is one of the concerns implicitly expressed in the Employment Act of 1946. Indeed, it is clear from early comments that the Congress interpreted "maximum purchasing power" to involve concern about inflation.

During most of the first 20 years of the Act this question about the role of the price level in the objectives of national economic policy had a certain leisurely and academic quality. The basic trend of the price level was moderately upward. Between 1948, the time that prices established a new plateau, and 1965 the consumer price index rose 31 percent. Over one-half of this rise, however, is accounted for by two 2-year surges in the price level—one from 1950 to 1952, and a second from 1956 to 1958. And one of these surges could be attributed to the large rise in defense outlays incident to the Korean conflict. Apart from these, the price level was performing in a reasonably quiescent manner.

Concern about the price level as a consideration in the objectives and management of economic policy has come into sharper focus and taken on a new sense of urgency with the rise in prices since 1965. While the inflation was clearly set off by excessively expansive fiscal and monetary policies, its persistence as the overheating of the economy subsided has raised urgent questions. Can a free economy have a reasonably stable price level with its productive resources fully utilized? Has the concentration on “maximum employment, production, and purchasing power,” as specified in the Employment Act, caused a bias in our policies that leaves us exposed to a sustained deterioration in the purchasing power of the dollar? Have new institutional structures and forces come into play that keep driving the price-cost level upward regardless of the state of the economy?

This much seems clear: The Employment Act of 1946, and the concerns that gave rise to its passage, moved the quality of our economic performance to a higher place on the Nation’s agenda. The Act provided a flexible and general statement of what our economic activity ought to do for us. The structures that it called for have evolved and adjusted to changing circumstances and problems. Our most urgent task, as we move into the second quarter century of the Employment Act of 1946, is twofold: to find ways of keeping the Nation consistently concerned about the problems raised by experience with inflation since 1965, and, with full regard for the requirements of a free economy and a free society, to develop new policies and programs needed to meet this national concern. We can be confident that this twofold task will be performed.

## CHAPTER 1

# The Record of 1970

**1970** WAS THE YEAR when policies of restraint initiated earlier to curb the long inflation had their first major effects on the economy. It was also the year when a large part of the transition from a wartime level of defense spending to a peacetime level was accomplished. Alongside these major forces were others that visibly affected the shape of the year. A long upsurge of business investment in plant and equipment came to an end and a strong rise in residential construction began. The stock market experienced one of its most severe declines in 40 years, one of the largest corporations in the country went into reorganization, and there was a 10-week strike of an even larger industrial corporation, whose products account directly and indirectly for about 1½ percent of the total national output.

The primary goal of anti-inflation policy in 1970 was to limit the decline of output that had been initiated by earlier restrictive measures and then to get output rising again in the second half. The increase of output that was desired was an amount sufficient to keep the rise of unemployment moderate but not so large as to prevent progress toward a lower inflation rate. The primary instruments for achieving this goal were monetary and fiscal policies aimed at influencing the rate of increase of the total demand for goods and services. Three requirements of the policy were important. First, policy should turn in an expansive direction early in the year. The turn in policy from its earlier restrictiveness would not affect the behavior of the economy immediately. To make sure the economy was rising again in the second half of 1970, the policy change would have to come well before that. Second, the combined fiscal and monetary stimulus should be sufficient to assure the desired rate of expansion in the economy. Third, both policies—fiscal and monetary—should become moderately expansive. A combination of a highly expansive fiscal policy and a restrictive monetary policy (or in principle a highly expansive monetary policy and a restrictive fiscal policy, although this combination was not in prospect in early 1970) was not wanted, partly because it was not certain that primary reliance on either alone could be counted on to yield the desired overall results.

These requirements of policy were all met. The change in monetary policy was reflected in two decisions of the Federal Reserve Open Market Committee, first on January 15, 1970, and then more decisively on February 10.

The stock of money (currency plus demand deposits), which had increased at an annual rate of 1.2 percent in the second half of 1969, rose at the rate of about 5½ percent during 1970 (Chart 1). In the Federal Reserve policy of 1970 more attention than formerly was paid to achieving a specified rate of growth of money and credit and less was paid to achieving predetermined conditions in money markets. By and large the Federal Reserve was able to achieve its overall targets despite the necessity to act quickly from time to time to prevent disorderly conditions in credit markets.

The sequence from monetary tightness in 1969, which slowed down the economy and reduced the demand for credit, to the easier monetary policy of 1970, which increased the supply of credit, produced a dramatic decline of interest rates. Short-term rates declined by about 3 percentage points from their peaks reached at the end of 1969. Long-term rates surged upward in May and June during the period when the demand for liquidity was at a maximum because of uncertainties in both foreign and domestic affairs, but thereafter they declined substantially, particularly in November and December.

Fiscal policy also changed sharply in 1970. The net budget position in the national income accounts shifted from a surplus of \$9 billion in calendar 1969 to a deficit of \$11 billion in 1970. Most of this \$20 billion swing was the result of the lower level of the economy in 1970 than in 1969, measured against a full employment path. If the economy had been at full employment in both years there would have been a surplus, but it would have declined by \$5 billion. (See the appendix to this chapter, "Measures of Changes in Fiscal Policy.") Most of the shift in the budget position occurred after the first quarter of the year (Table 1).

Expenditures increased about \$15 billion, a decline of \$2 billion in defense purchases being much more than offset by an increase in other categories.

TABLE 1.—Federal Government receipts and expenditures, national income accounts basis, 1969–70

[Billions of dollars, seasonally adjusted annual rates]

Period	Actual			Full employment estimates		
	Receipts	Expenditures	Surplus or deficit (—)	Receipts	Expenditures	Surplus
1969 .....	200.6	191.3	9.3	203.3	191.7	11.7
1970 .....	195.4	206.2	—10.8	212.0	205.3	6.7
1969: I .....	197.2	187.7	9.5	197.2	188.1	9.1
II .....	202.5	189.1	13.4	203.4	189.5	13.9
III .....	200.8	192.5	8.3	204.3	192.8	11.5
IV .....	202.0	195.9	6.1	208.3	196.2	12.1
1970: I .....	195.9	197.7	—1.7	208.0	197.6	10.4
II .....	196.7	210.9	—14.2	211.9	209.9	2.0
III .....	194.9	206.7	—11.8	211.9	205.5	6.4
IV .....	194.1	209.5	—15.4	216.2	208.3	7.9

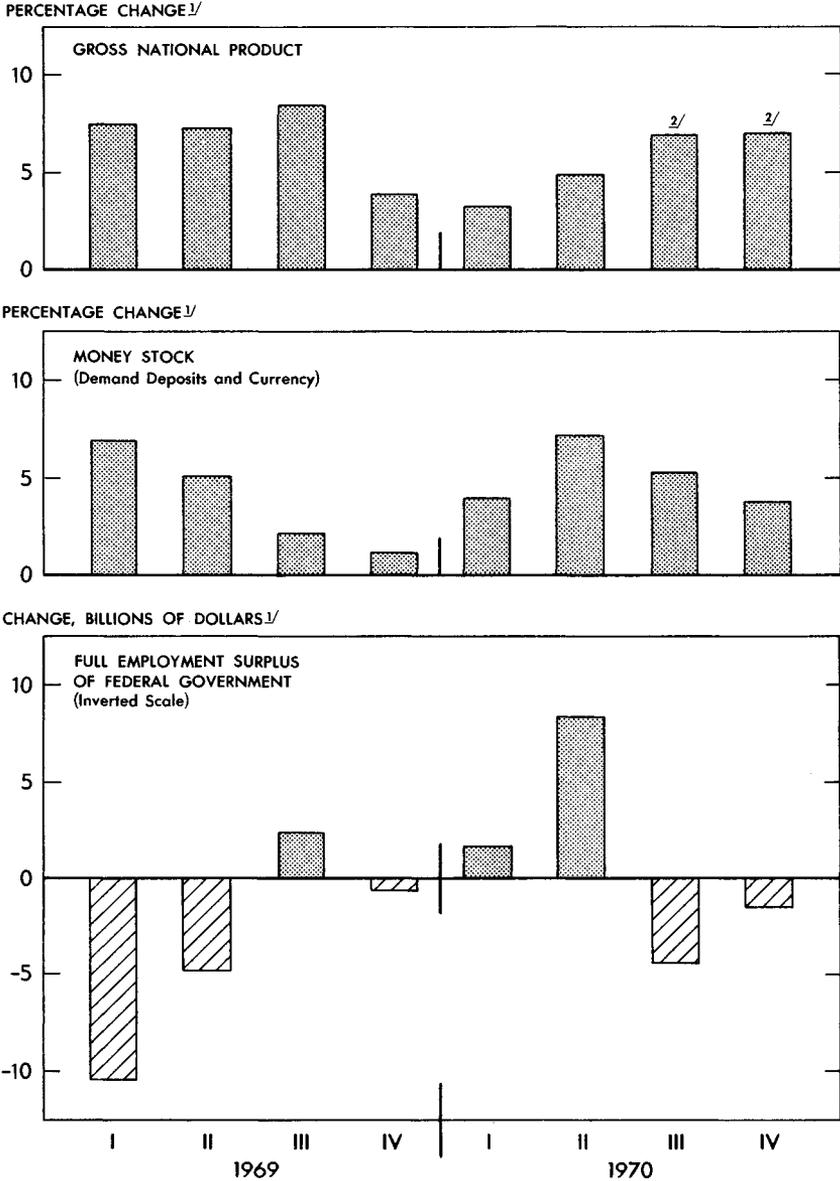
1 Preliminary.

Note.—Detail will not necessarily add to totals because of rounding.

Sources: Department of Commerce and Council of Economic Advisers.

Chart 1

## Changes in GNP, Money Stock, and Full Employment Surplus



<sup>1/</sup>SEASONALLY ADJUSTED ANNUAL RATES.

<sup>2/</sup>ADJUSTED FOR THE EFFECTS OF THE AUTO STRIKE.

SOURCES: DEPARTMENT OF COMMERCE, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, AND COUNCIL OF ECONOMIC ADVISERS.

The increase in expenditures included \$1 billion more for unemployment compensation because of higher unemployment rates. Receipts declined by about \$5 billion. Expiration of the surcharge in two steps reduced revenues by \$8.3 billion, and other tax changes during 1970 cut them by \$0.6 billion. Because of the slowdown of the economy only a small part of this reduction was offset by expansion of the tax base.

A shift in the budget position in 1970 that would have eliminated the large surplus of 1969 was implicit in the Administration's plans at the beginning of the year.\* This was due partly to the projected path of the economy below full employment and partly to the combined effect of changes in expenditures and taxes. The actual shift, which ended in a substantial deficit, exceeded the plan, however, one reason being lower economic activity than projected and the other being unplanned expenditure increases. The Administration's position was to accept the deficit resulting from the economic slowdown as an aid to limiting the slowdown. It also accepted some moderate expenditure increases beyond its budget. However, it strongly resisted program expansions which would substantially raise commitments for expenditures beyond 1970.

The policies of 1969 and 1970 were intended to achieve at first a slowdown in the rate of increase of money demand and then a moderate revival of that rate. This general pattern was accomplished. The increase of money GNP, which had been running at an annual rate of about 7½ percent in the first three quarters of 1969, subsided to about half of that in the fourth quarter of 1969 and in the first quarter of 1970. The rate then increased to about 5 percent in the second quarter and to a little over 6 percent in the third. The fourth-quarter picture is obscured by the great effect of the auto strike, but with a minimum allowance made for that factor it would seem likely that underlying demand increased at an annual rate of about 7 percent in the fourth quarter.

This early revival of the growth of demand limited the decline of real output. From its peak in the third quarter of 1969 to the first quarter of 1970, real GNP fell by 1 percent (at an annual rate of 2 percent). After stabilizing in the second quarter it rose in the third, almost regaining its previous peak. The Council estimates that real output in the fourth quarter, instead of decreasing, would have increased at least as rapidly as in the third if it had not been for the strike. From 1969 to 1970, total output declined by about one-half of 1 percent.

In the early part of the slowdown employment was well maintained, as employers held on to labor against the possibility that a tight labor market might soon return. By early 1970, however, with sales sluggish and profits weak, businesses were making intensive efforts to reduce payrolls in order to cut costs. Together with an extraordinary rise in the labor force, this development boosted the unemployment rate from 3.5 percent in December

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\*The above statement refers to the national income accounts for calendar 1970. On a unified budget basis small surpluses were planned for both fiscal 1970 and fiscal 1971.

to 5.0 percent in May. Thereafter the rate leveled off for some months but began to rise again in the latter part of the year, partly under the influence of the auto strike, until it reached around 6.0 percent in December.

In some degree, though it cannot be measured precisely, the rise of unemployment was aggravated by the 1.1 million reduction in defense employment during the year, of which about 0.6 million occurred in the private sector. Unemployment between jobs may be longer than average for persons released from defense production, because of their geographic location, the specialized nature of their skills, and their above-average incomes, when employed. Moreover, given the slowdown in the rise of money demand, there would probably have been more restraining effect on prices and less reduction of output and employment, if the reduction of demand had been less heavily concentrated in defense industries.

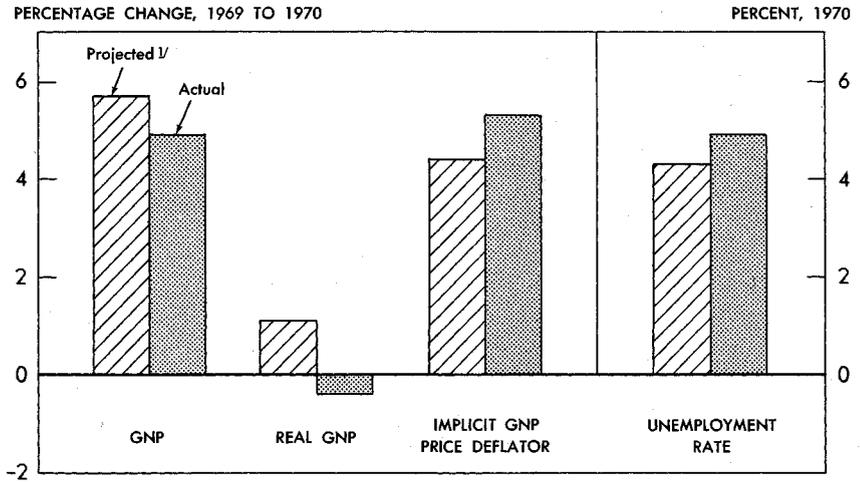
The purpose of the policy of restraint, which had as one consequence the reduction of output and employment, was to stop the rate of inflation from accelerating and to slow it down. Many signs now show that this is being accomplished. The seasonally adjusted annual rate of increase of the consumer price index, which had been 5.9 percent in the second half of 1969 and 6.0 percent in the first half of 1970, was 4.6 percent from June to November. Wholesale prices, after a 4.2 percent rise in the second half of 1969, rose at the rate of 2.6 percent in the first half of 1970 and 2.1 percent in the second half of 1970. Although 1970 brought only a faint sign of abatement in the rate of increase of wages, the reduction in overtime reduced costs per hour of work, and productivity rose more rapidly in 1970 than in 1969. Labor costs per unit of output therefore rose more slowly.

The policies of 1969 and 1970 set a ceiling to the mounting inflation and turned the inflation down; they set a floor to declining output and turned it upward. The strongest American inflation in over a century, aside from periods of major war, was countered by deliberate acts of policy; another change of policy checked the accompanying decline in the real economy before it had gone far.

Although total output declined slightly from 1969 to 1970, this decline was less than the decrease in production for defense; the output devoted to nondefense purposes increased. The real per capita disposable income of persons (that is, after allowing for changes in both taxes and prices) reached a record high in 1970. Real compensation per hour of work increased by 1.1 percent over 1969, a little more than the increase in real output per hour. Real personal consumption expenditures for the year were 2 percent above those for 1969. The increase in the real per capita disposable incomes of persons was made possible in part by the cuts in defense. These cuts also contributed to the rise in unemployment. But at its 1970 peak around the end of the year, while the influence of the General Motors strike was still being felt, the rise of the unemployment rate had not been as large as in earlier transitions from inflation and war. At the end of the year, about half the unemployed had been out of work for less than 6 weeks.

Chart 2

## Comparison of Projected and Actual GNP, Prices, and Unemployment Rate



<sup>1</sup>PROJECTED BY COUNCIL OF ECONOMIC ADVISERS, FEBRUARY 1970.

SOURCES: DEPARTMENT OF COMMERCE, DEPARTMENT OF LABOR, AND COUNCIL OF ECONOMIC ADVISERS.

The performance of the economy disappointed many expectations and intentions, including those of this Council. Aggregate demand in money terms and real output were lower than expected, while the rate of inflation and the unemployment rate were higher (Chart 2). The momentum of rising costs and prices, a legacy of the long inflation, proved to be extremely powerful. The continuing rise of prices and wages creates the main uncertainties for economic policy in 1971. It is the inflation that has prevented an all-out attack on unemployment and that contains the possibility of frustrating the recovery policies which are being adopted.

Some people have been hurt in the transition to a lower level of defense expenditure. Some have suffered the hardship of unemployment. Others have experienced shorter hours, or loss of profits. The entire economy has been hit by inflation. These hardships are the price that is now being paid for the earlier inflationary boom. The memory of this price should stay with us as economic policy is made in the future.

### DEMAND PATTERNS

The part played by the principal components of demand in the slowdown and initial phase of revival is best seen in the period from the third quarter of 1969 to the third quarter of 1970. The results for the fourth quarter of 1970 are so influenced by the temporary supply constraint caused by the auto strike that they yield little reliable evidence on the trend of demand either in

TABLE 2.—Changes in gross national product, by component, 1967 III to 1970 III

[Billions of dollars]

Component	Change in seasonally adjusted annual rates				
	1967 III to 1968 III	1968 III to 1969 III	1969 III to 1970 III	1969 III to 1970 I	1970 I to 1970 III
Total GNP.....	74.9	66.8	42.9	16.9	26.0
Federal Government purchases.....	9.3	1.8	-3.9	-.2	-3.7
All other GNP.....	65.6	65.0	46.8	17.1	29.7
Change in business inventories.....	- 5	3.1	-5.8	-9.7	3.9
Final sales.....	66.1	61.9	52.6	26.8	25.8
Personal consumption expenditures.....	48.3	38.3	40.0	21.0	19.0
Nonresidential fixed investment.....	5.0	13.2	2.1	1.1	1.0
Residential structures.....	3.3	1.1	-1.8	-1.9	.1
Net exports.....	-2.2	-.8	1.6	-.9	.7
State and local government purchases.....	11.5	10.2	10.8	5.8	5.0

Note.—Detail will not necessarily add to totals because of rounding.

Source: Department of Commerce.

the aggregate or by sectors. We shall return later, however, to the interpretation of the fourth quarter, because it is important as the starting point for 1971. Here we shall concentrate on the less uncertain picture presented by the period through the third quarter of 1970 (Table 2).

Total demand, as measured by total expenditures for gross national product, increased much less in the year ending in the third quarter of 1970 than in the same period a year earlier—\$42.9 billion as compared to \$66.8 billion. The slower increase, or decline, of four categories of demand—Federal purchases, change in business inventories, residential structures, and business fixed investment—amounted to more than the total slowdown. The total of the other categories—personal consumption, net exports, and State and local purchases—rose a little more in the later period than in the earlier one.

Expenditures rose more from the first to the third quarter of 1970 than they did over the preceding two quarters. Changing rates of inventory accumulation were mainly responsible for this shift. In part, the changing pattern of demand—from 1969 to 1970 and in 1970—reflected the fiscal and monetary policies of the time. The decline of Federal defense purchases continued, but tax reductions and increases in transfer payments helped to sustain consumer spending when earned income was weak. Monetary ease helped promote the flow of funds into savings institutions and thus supported the turnaround in housing. An increase of Federal grants-in-aid to the States helped to keep State and local purchases growing fairly steadily despite the economic slowdown.

#### CONSUMER INCOME AND SPENDING

Consumer spending rose about as much from the third quarter of 1969 to the third quarter of 1970 as in the preceding four-quarter period despite

the sluggish economy (Table 2). It constituted an important force sustaining aggregate demand early in the year when the economy was contracting, and it contributed to the recovery. This pattern of consumption resulted from fiscal measures that buttressed consumer disposable income in 1970 against forces of contraction as well as from the automatic stabilizing influence of the tax system.

With little change in real output and employment during 1970, private wages and salaries, the largest component of income, rose much less rapidly from the third quarter of 1969 to the third quarter of 1970 than in the year before—4.6 percent as compared to 9.8 percent (Table 3). Government payrolls, however, continued to rise rapidly notwithstanding cutbacks in the size of the Armed Forces. Part of the slowdown in private payrolls was offset by the rise in State unemployment insurance benefits, but there was also a large expansion in Social Security benefits in the spring. Corporations maintained dividend payments in the face of a pronounced decline in profits, a practice evident in earlier periods of slowdown. All told, the increase in personal income came to 6.5 percent as compared to the 8.7 percent rise during the preceding year.

The decline in personal taxes affected after-tax disposable income even more than did the rise in transfers. After increasing over \$15 billion from the third quarter of 1968 to the third quarter of 1969, personal taxes declined more than \$3 billion in the same period a year later. Reductions in taxes, amounting to \$10 billion, more than offset the moderate rise that would have occurred at 1969 rates. Disposable income during the later period rose substantially, 8.2 percent compared to 7.6 percent over the preceding period.

Only part of the fiscal stimulus created in 1970 was translated into an

TABLE 3.—Changes in personal income, taxes, disposable income, and consumption, 1967 III to 1970 III

[Billions of dollars]

Item	Change in seasonally adjusted annual rates				
	1967 III to 1968 III	1968 III to 1969 III	1969 III to 1970 III	1969 III to 1970 I	1970 I to 1970 III
Personal income.....	62.9	60.5	49.1	24.2	24.9
Wage and salary disbursements.....	44.6	45.4	27.4	15.5	11.9
Government.....	11.3	8.9	8.4	2.8	5.6
Private.....	33.3	36.5	19.0	12.7	6.3
Transfer payments.....	7.9	5.5	13.2	4.3	8.9
Other personal income.....	12.8	12.9	10.1	5.4	4.7
Less: Personal contributions for social insurance.....	2.4	3.3	1.6	1.0	.6
Less: Personal tax and nontax payments.....	18.1	15.4	-3.3	-5	-2.8
Equals: Disposable personal income.....	44.9	45.0	52.4	24.7	27.7
Personal consumption expenditures.....	48.3	38.3	40.0	21.0	19.0

Note.—Detail will not necessarily add to totals because of rounding.

Source: Department of Commerce.

increase in consumer spending during the year, the shortfall from expectations being most pronounced after the midyear. This is best seen in the saving rate, which rose in the second quarter to a level that has occurred in the past but that must be judged high by historical standards. The rate was maintained in the third quarter. The rise in the second quarter came mainly from the lagged response of consumers to the large increase in income caused by the statutory rise in Social Security benefits and the Federal pay raise, both of which included payments retroactive to the first of the year. The severe decline in the stock market in May might have been a contributing factor, although it is of interest that, despite the decline in consumer net worth that this implied, purchases of automobiles were higher in the second quarter than in the first. But by the third quarter consumers had clearly become cautious, since with incomes no longer rising rapidly, some decline in the saving rate might reasonably have been expected.

Sometimes shifts in the saving rate are a reflection of shifts in consumption patterns. Table 4 provides alternative measures of the saving rate, obtained by adding to the saving rate either all consumer purchases of durable goods or consumer purchases of autos and parts (as a percentage of income). Although sluggish demand for automobiles affected the saving rate in the first quarter, it does not explain the continued high rate through the third. The method of adding all consumer durables to the saving rate makes it clear that saving was indeed high in the second and third quarters. The data, which are still preliminary, suggest that consumers may have shifted purchases to nondurables in the strike-affected fourth quarter.

TABLE 4.—*Personal saving and alternative measures of saving, 1965-70*

Period	Percent of disposable personal income <sup>1</sup>				
	Personal saving	Personal consumption expenditures		Saving plus—	
		Total durables	Auto-mobiles and parts	Total durables	Auto-mobiles and parts
1965.....	6.0	14.0	6.4	20.0	12.4
1966.....	6.4	13.8	5.9	20.2	12.3
1967.....	7.4	13.4	5.6	23.8	13.0
1968.....	6.8	14.2	6.3	21.0	13.1
1969: I.....	5.6	14.6	6.5	20.2	12.1
II.....	5.3	14.5	6.4	19.9	11.8
III.....	6.5	14.0	6.3	20.5	12.8
IV.....	6.3	14.0	6.3	20.3	12.6
1970: I.....	6.7	13.4	5.7	20.1	12.4
II.....	7.5	13.4	5.8	21.0	13.3
III.....	7.6	13.2	5.7	20.8	13.3
IV <sup>2</sup> .....	7.3	12.3	4.7	19.6	12.0

<sup>1</sup> Quarterly percents based on seasonally adjusted data.

<sup>2</sup> Preliminary.

Note.—Detail will not necessarily add to totals because of rounding.

Source: Department of Commerce.

## BUSINESS FIXED INVESTMENT

The policies of restraint pursued in 1969 and their effects on the cost and availability of financing played an important role in bringing the long boom in capital investment almost to a halt during 1970. After rising 12 percent from calendar 1968 to 1969, nonresidential fixed investment increased only 3 percent, less than the rise in the index of plant and equipment costs. Businessmen scaled back by a few percentage points the plans that had been reported early in the year in surveys of investment intentions; this was a somewhat larger shortfall from plans than occurred in 1968 and 1969.

The effects of the general slowdown on investment were quite varied. In some industries like electric utilities and communications, which increased their outlays by substantial amounts, the response was slight, the need for additional facilities having been accentuated by service breakdowns in some areas. To a considerable extent these industries, which enjoy strong growth trends, tend to budget their capital outlays over long periods. Since they are regulated noncompetitive industries facing inelastic demands, they also have the ability to pass on high interest costs in the form of higher rates, once authority has been granted by regulatory commissions. The strength of investment in these industries and increased spending by the airlines were important in offsetting the more common response—either a decline in investment outlays or a much smaller rise than that of the preceding year. Sharp drops in profits, relatively low operating rates, high interest costs, and other financing difficulties brought decreases in the amounts spent by manufacturing companies and railroads, whose spending patterns tend to be more sensitive to business conditions. The decline in corporate profits after taxes was pronounced—8½ percent from 1969—and was especially severe in the first and fourth quarters, when automobile output was depressed. In addition, the termination of the investment tax credit probably had a general dampening effect on investment outlays.

Demand for new plant and equipment was not strong but appeared to be holding up at a high level as the year progressed. Appropriations by manufacturers, which had fallen in the fourth quarter of 1969 and the first quarter of 1970, leveled out in the second quarter and rose in the third. The results of the surveys of businessmen's spending intentions for 1971 pointed to small increases in current dollar outlays and small decreases in real terms. In view of such adverse developments as the stock market decline and the Penn Central problems in May and June and the automobile strike after mid-September, these indicators of business investment decisions made in the second half of 1970 suggest that business confidence held up reasonably well.

## INVENTORY INVESTMENT

Businessmen pursued cautious inventory policies in 1970; for the year as a whole they added \$5 billion less to their stocks than they had in 1969. The most significant fact about inventory behavior was the quarterly pattern and its effect on movements in GNP. The more rapid rise in GNP from the first to the third quarter of 1970 as compared to the preceding half-year reflected a shift in inventory investment. In the earlier period the rate of inventory accumulation declined, subtracting from the change in GNP, while in the latter period an increase in the rate of accumulation added to the rise in GNP.

The year started with stocks somewhat high in relation to sales or output mainly because of the slowdown in sales late in 1969. However, it was expected that businessmen would make a gradual reduction in their inventory investment, rather than an abrupt change, because for much of 1969 they had been expecting a slowdown in business to follow the Administration's announced intention of cooling off the economy.

Early in the year, however, investment in stocks was slashed, from an annual rate of \$11 billion in the third quarter of 1969 to \$1½ billion in the first quarter of 1970. Indeed, this sharp decrease explains much of the weakness in the economy early in the year. A good part of the decline came from the automobile industry, where a softening in auto demand led to a severe reduction in output. In addition, work-in-process inventories in the aerospace industry were reduced as companies increased their deliveries and were forced to cut back on new work. Automobiles and aircraft together accounted for about \$6 billion of the \$10-billion decline in inventory accumulation. The recovery of the auto industry in the spring and summer was one reason for the somewhat higher rates of accumulation in the second and third quarters.

## HOUSING

Nowhere have the effects of policies been more visible in the past 2 years than in homebuilding, where 1970 brought substantial recovery after the sharp decline of 1969. The year began with private housing starts at the low seasonally adjusted annual rate of 1.25 million units in the first quarter, down from a high of 1.64 million in the first quarter of 1969. By the fourth quarter, however, starts had exceeded that earlier peak. The increased availability of funds for mortgages, which will be described later in this report, was the driving force for this turnaround.

The total of 1.43 million units started in calendar 1970 represented a 3-percent decrease from the number of starts in 1969. Expenditures, however, fell 8 percent in the face of a 5-percent increase in the index of housing costs. The decrease reflected a decline in the average value of single-family starts, the first in many years. New homes were apparently smaller in floor area and had fewer of the amenities associated with housing quality.

This decline in the average quality of single-family houses, which started

before 1970, has been influenced heavily by changes in costs. From 1969 to 1970 wage rates in construction rose 9.2 percent. With productivity gains small, most of these exceptionally large adjustments were reflected in higher building costs. Land prices and property taxes have also been increasing persistently. And yields on new FHA home mortgages reached 9.29 percent in March 1970, 130 basis points higher than the yield a year earlier, although by December the figure had fallen to 8.90 percent.

The rising costs of home ownership have been dramatic in recent years. The average home built in 1965 with FHA financing obligated the buyer to \$118 per month in mortgage payments. In 1970, for a house of the same size, the corresponding figure was \$212, an increase of 80 percent at a time when median family incomes rose about 45 percent. Because of higher costs, however, the average size of the home sold in 1970 was smaller than its counterpart in 1967, 1968, and 1969. An increase in the proportion of houses financed with Federal subsidies also contributed to a reduction in the average value of houses built in 1970, because the subsidies go to smaller and cheaper houses.

#### STATE AND LOCAL GOVERNMENT PURCHASES

State and local government purchases, which have been rising steadily for many years, continued to increase at a rapid rate and were an important sustaining force in 1970. The 9-percent rise in such purchases was a little less than that of the year before despite a faster rise in prices. Most of the slow-down reflected the difficulties that States and localities experienced in financing their construction projects, except for federally aided highways, in 1969 and early 1970.

With expenditures continuing to rise very rapidly, employment by State and local governments rose almost 5 percent over the average level in 1969, a somewhat faster rate than the year before but about 1 percent less than the average annual percentage increase in the period from 1964 to 1968. The rise in wage and salary rates was especially large last year. At the same time strikes by State and local government employees, as in the last few years, were a much more common occurrence.

#### THE FOURTH QUARTER OF 1970

According to preliminary estimates, GNP in the fourth quarter of 1970 rose at an annual rate of about 2 percent, compared to the 6 percent rate of increase in the third quarter. During 2 months of the fourth quarter the motor vehicle plants of General Motors Corporation were closed down as the result of a work stoppage. The basic demand for output was clearly rising but was kept from expressing itself in purchases by the strike. Although the question cannot be answered precisely, it is useful to estimate the rate at which the underlying demand was actually rising. We could then judge better how well the expansive policies initiated earlier

were working and also have a better base for appraising the prospects for the economy as 1971 begins.

Those components of demand where the strike impact was either non-existent or not large on balance—private construction, purchases by Federal, State, and local governments, and net exports—as a group rose about as much in the fourth quarter as in the third. Consumer purchases of non-durable goods, which were indirectly affected by the loss of income resulting from the strike, nonetheless rose more in the fourth quarter than in either the second or third. Declines were pronounced, however, in those sectors affected by the strike—consumer durable goods expenditures and producers' durable equipment. In aggregate, inventory investment declined by about \$1½ billion, as a severe reduction in auto stocks offset increased accumulation in other industries.

A partial notion of the strike's impact on GNP may be obtained from gross auto product (the value of automobile production and distribution), which declined \$12 billion from the third to the fourth quarter. GNP, excluding automobiles, rose \$17½ billion over the same period (Table 5).

The decline in auto GNP in the fourth quarter does not tell everything of the strike's impact. It ignores the effect on truck production. Furthermore with so large a loss in output there must have been substantial multiplier effects (which may well have started even before the strike) as workers cut back on their consumption, particularly their purchases of durable goods, in the face of drastic cuts in income. Then too, because of the uncertain length of the strike, some businessmen may have adopted conservative buying policies while the strike was still on. On the other hand, strike benefits helped to hold up income, and dissaving helped to support the consumption of workers affected. Two other developments may have mitigated the negative impact of the strike. One is the possibility that suppliers accumulated more stocks of parts and supplies than would have occurred in the absence of the strike. And it is possible that some consumers, unable to buy their new cars, purchased other things.

A minimum estimate of the strike's impact may be put at approximately \$14 billion. This is based on an estimate that domestic automobile output would have been at a seasonally adjusted annual rate of 8 million units (as

TABLE 5.—*Changes in auto and other gross national product during 1970*

(Billions of dollars, seasonally adjusted annual rates)

Period	Change from preceding quarter		
	GNP	Auto GNP	All other GNP
1970: I.....	7.8	-4.7	12.5
II.....	11.6	4.3	7.3
III.....	14.4	-.7	15.1
IV <sup>1</sup> .....	5.4	-12.0	17.4

<sup>1</sup>Preliminary.

Source: Department of Commerce.

compared to 8½ million in the period from June through August), plus an allowance for lost truck production minus some offset for suppliers' inventories. The total impact on GNP was greater than these effects but because of difficulties in estimation a specific figure is not presented. On this basis GNP in the fourth quarter would have been \$1,005 billion. This would represent a rise over the third quarter amounting to 7 percent at an annual rate.

## OUTPUT, EMPLOYMENT, AND UNEMPLOYMENT

Between 1969 and 1970, when the value of output rose by 4.9 percent, prices rose 5.3 percent and real output fell by 0.4 percent. Without the automobile strike, which began in mid-September, real output for the full year would probably have been slightly higher in 1970 than in 1969. Real output declined from the third quarter of 1969 to the first quarter of 1970 by about 2 percent (annual rate), leveled out in the second quarter, and then rose slightly in the third and decreased in the fourth. If the strike had not occurred, the annual rate of increase in output in the third quarter would have been about 1 percent greater, while in the fourth quarter the rate of rise would have been in the neighborhood of 2-3 percent.

From the third quarter of 1969 to the third quarter of 1970 real output declined by one-half of 1 percent (without strike adjustment). Since Federal purchases, mainly for defense, declined significantly, total real output available for non-Federal use rose by 0.8 percent. The latter reflected a rise in real expenditures of consumers, net exports, and State and local government purchases that more than offset a decline in real private investment (Table 6). Looked at another way, the decline in output was concentrated

TABLE 6.—Changes in real gross national product, 1967 III to 1970 III

[Billions of dollars, 1958 prices]

Component	Change in seasonally adjusted annual rates				
	1967 III to 1968 III	1968 III to 1969 III	1969 III to 1970 III	1969 III to 1970 I	1970 I to 1970 III
Total GNP.....	33.7	18.3	-3.5	-7.1	3.6
Federal Government purchases.....	3.5	-3.7	-9.0	-4.1	-4.9
All other GNP.....	30.2	22.0	5.5	-3.0	8.5
Change in business inventories.....	-.9	2.5	-5.3	-8.6	3.3
Final sales.....	31.1	19.5	10.8	5.6	5.2
Personal consumption expenditures.....	26.1	11.0	10.9	5.3	5.6
Nonresidential fixed investment.....	2.0	7.0	-2.3	-1.0	-1.3
Residential structures.....	1.5	-.5	-2.3	-1.6	-.7
Net exports.....	-2.7	-.7	2.3	1.1	1.2
State and local government purchases.....	4.1	2.7	2.3	1.7	.6

Note.—Detail will not necessarily add to totals because of rounding.

Source: Department of Commerce.

in construction and in durable commodities, mainly motor vehicles. Output of nondurable goods and services was up slightly.

#### EMPLOYMENT AND UNEMPLOYMENT

The decline of output that began toward the end of 1969 did not immediately affect total employment. Indeed, the rise in employment (as estimated from the household survey) from the fourth quarter of 1969 to the first quarter of 1970 was at a rate only moderately less than it was during 1969, a year of considerable employment expansion. Although manufacturers had begun to cut their employment in the fourth quarter, nonmanufacturing firms continued to increase theirs. Experience with labor shortages for several years, when the economy was operating above its potential, probably led many employers to take on workers as they were available and to postpone laying off workers until the slackening in demand was clearly not temporary. Hours of work were reduced, however, a trend that had been in progress during most of 1969.

The first-quarter rise in employment proved to be short lived. The output decline, coming at a time when payrolls were increasing because of rapidly rising wage rates, led to a pronounced increase in unit labor costs and a sharp decrease in profits. Employers began examining their costs much more carefully and took measures to reduce them or at least to hold down their rise. After declining in the spring quarter, employment (household basis) leveled out after midyear. Manufacturing employment declined through the year, nonmanufacturing employment was about unchanged, and government employment rose. The average level of employment in 1970 increased by only 0.7 million workers over 1969, the smallest rise since 1961 and roughly half of the normal growth in the labor force.

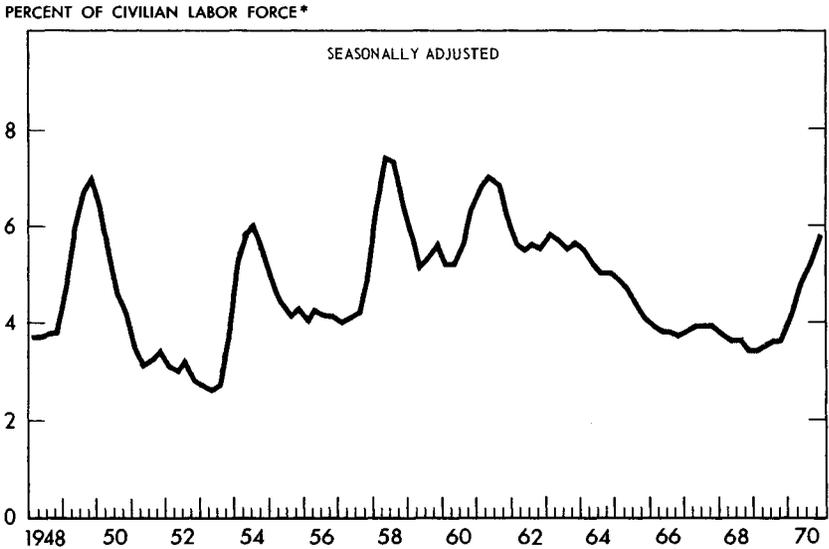
With real output declining or rising very little, unemployment rose in each quarter of 1970. The unemployment rate increased sharply in the first half of the year, rising from 3.6 percent in the fourth quarter of 1969 to 4.1 percent in the first quarter and 4.8 percent in the second. The rate of increase diminished somewhat in the summer months but speeded up again in the final quarter to a rate of 5.8 percent (Chart 3). The 4.9-percent rate for the full year was the highest since 1964, and represented an average of 4.1 million persons out of work.

Last year's rise in unemployment was greater than had been anticipated in most projections, including that of the Council. Explanations for the large rise in unemployment are found in the behavior of the labor supply and production costs. The civilian labor force increased by 1.9 million workers from the final quarter of 1969 to the corresponding 1970 quarter. This was less than the 2.4-million increase over the preceding 4 quarters, but it was larger than the average of the 1960's.

One special circumstance that contributed to the large increase in the civilian labor force was the reduction in the Armed Forces. During 1970, 400,000 persons left the armed services, and most of them entered the labor

Chart 3

## Unemployment Rate



\* DATA RELATE TO PERSONS 16 YEARS OF AGE AND OVER.  
SOURCE: DEPARTMENT OF LABOR.

force. The change in selection procedures for drafting young men may also have contributed to the very large increase in the number of adult men entering the labor force during the year. Although adult women and teenagers entered the labor force in smaller numbers during 1970 than during 1969, the increases were not markedly lower than in other recent years. There is little evidence, therefore, that the increased difficulty which workers experienced in finding jobs in 1970 led to a significant withdrawal from the labor force; it has apparently shown up almost entirely in increased unemployment.

The first-quarter rise in the labor force was especially large—3.7 million persons at an annual rate. The reduction in the Armed Forces may have contributed to the rise, as noted above, but in addition women and teenagers continued to enter the labor force in large numbers at a time when labor demand, although still strong, had begun to slacken. The slower rise in the civilian labor force after the first quarter was more nearly in line with the experience of the 1960's.

The other explanation for the large unemployment increase would appear to be related to the rapid increase in wage rates and the very poor performance of productivity in 1969, and to attempts by businessmen to compensate for this cost increase in 1970. From mid-1968 to mid-1969, for example, output per man-hour in the private nonfarm sector showed no growth whatever. This was a period when demand was still very high and the

economy was operating well above its potential. Demand for labor was intense. The unemployment rate for all persons averaged less than 3.5 percent, and the rate for married men 1.5 percent, the lowest since the Korean war. This was a period of rapid employment growth for women and teenagers who lacked experience and whose productivity tended to be below average. Labor turnover was also very high and absenteeism common.

The situation started to change in the fall of 1969 when policies of restraint began to make themselves felt. Crosscurrents began to appear. In manufacturing, hiring slowed down and layoffs started to increase. Output declined in the fourth quarter of 1969 and fell more in the first quarter of 1970. The sharp decrease in productivity in the first quarter of 1970 reflected the usual practice among employers of retaining workers in the face of falling output; the decline in output per hour was not markedly different from the decreases that accompanied other downturns. Employment increased in nonmanufacturing industries.

The situation changed much more after the first quarter as businessmen stepped up their efforts to cut their costs. It was natural that operations had become inefficient after the long period of expansion, and a correction of the excesses of the past was clearly going to take more than a month or two. Moreover, the increase in wage rates showed little evidence of receding. The attempt to cut labor costs by letting workers go was a reversal of the practice followed for several years, when employers had difficulty in attracting and keeping productive, experienced workers. In the second quarter, productivity rose at an annual rate of 3.9 percent, and in the third quarter the gain was 4.5 percent. In the fourth quarter, however, productivity declined as a result of the strike.

### *Characteristics of the Unemployed*

The increased unemployment in 1970 was not accompanied by a marked lengthening in the duration of unemployment, although there was a strong trend in that direction during the year. The median duration of unemployment increased from 4.3 weeks in 1969 to 4.8 weeks in 1970; over half those unemployed were unemployed for less than 5 weeks. In fact, fewer than half those unemployed in an average month in 1970 were unemployed in the following month. The reason for this is that persons who have been unemployed for a relatively long period have a higher probability of remaining unemployed in succeeding weeks than persons who have only recently become unemployed. The median duration of completed spells of unemployment is much shorter than the median duration pertaining to persons unemployed at any given time. Although net additions to employment totalled only 0.7 million, there was a great deal of flux in the labor market; in an average month at least 2 million workers were taken off the unemployment rolls, and a slightly larger number of persons newly searching for jobs were added.

The relative increase in unemployment among adult men was more than twice that for adult women and teenagers. As a result, the unemployment

rate for adult men, which had decreased year by year starting in 1962, increased substantially, from 2.1 to 3.5 percent. The rate for married men rose from 1.5 to 2.6 percent. The rate for persons of Negro and other races increased from 6.4 to 8.2 percent but remained significantly below its historical relationship of twice the rate for whites (Table 7). Long-term unemployment (15 weeks and over) increased from 0.5 percent to 0.8 percent of the labor force.

TABLE 7.—Selected unemployment rates, 1961–70

Group of workers	[Percent] <sup>1</sup>					
	1961–65 average	1966	1967	1968	1969	1970
All workers.....	5.5	3.8	3.8	3.6	3.5	4.9
Sex and age:						
Both sexes 16–19 years.....	15.9	12.8	12.8	12.7	12.2	15.3
Men 20 years and over.....	4.4	2.5	2.3	2.2	2.1	3.5
Women 20 years and over.....	5.4	3.8	4.2	3.8	3.7	4.8
Race:						
White.....	4.9	3.4	3.4	3.2	3.1	4.5
Negro and other races.....	10.4	7.3	7.4	6.7	6.4	8.2
Selected groups:						
White-collar workers.....	2.8	2.0	2.2	2.0	2.1	2.8
Blue-collar workers.....	7.1	4.2	4.4	4.1	3.9	6.2
Craftsmen and foremen.....	4.8	2.8	2.5	2.4	2.2	3.8
Operatives.....	7.3	4.3	5.0	4.5	4.4	7.1
Nonfarm laborers.....	11.8	7.4	7.6	7.2	6.7	9.5
Private wage and salary workers in nonagricultural industries.....	5.9	3.8	3.9	3.6	3.5	5.2
Construction.....	12.8	8.1	7.4	6.9	6.0	9.7
Manufacturing.....	5.6	3.2	3.7	3.3	3.3	5.6

<sup>1</sup> Number of unemployed in each group as percent of civilian labor force in that group.

Source: Department of Labor.

The unemployment rate for young persons 16 to 21 years old increased in 1970, for those both in school and out of school (Table 8). Unemployment rates for young persons are typically high because many of them are new entrants into the labor force and are looking for short-term and part-time jobs. For example, about 85 percent of those unemployed and in school were looking for only part-time work. Although the fraction of the young people in the labor force who were unemployed was high (13.3 percent), particularly for those in school, the fraction of all young people who were unemployed and not in school during the year was relatively low.

Recent changes in unemployment are better seen in a comparison of the third quarter of 1970 with the third quarter of 1969, since this approach minimizes distortions associated with the auto strike in the fourth quarter. Unemployment was 1.4 million higher in the third quarter of 1970 than for the same quarter of 1969, and the rate increased from 3.6 to 5.2 percent.

Among the 4.3 million persons unemployed in the third quarter of 1970, a total of 1.9 million had lost their previous jobs, whereas only 575,000 had quit the job they had last held. State-insured unemployment totaled 2.0 million in the third quarter of 1970. Thus, most unemployed workers

TABLE 8.—*Employment status of persons 16–21 years of age in the civilian noninstitutional population, 1969–70*

Employment status	Percentage distribution	
	1969	1970
Total civilian noninstitutional population 16–21 years of age.....	100.0	100.0
Major activity—going to school:		
Civilian labor force.....	14.7	13.8
Employed.....	13.0	11.6
Unemployed.....	1.7	2.2
Not in labor force.....	30.8	30.0
Major activity—other:		
Civilian labor force.....	39.4	40.7
Employed.....	35.5	35.7
Unemployed.....	3.9	5.1
Not in labor force.....	15.1	15.5
	Percent	
Unemployment rate of persons 16–21 years of age:		
Total.....	10.4	13.3
In school.....	11.7	15.9
Not in school.....	9.9	12.5

Note.—Detail will not necessarily add to totals because of rounding.

Source: Department of Labor.

who had lost their most recent job apparently were covered by unemployment insurance programs.

Both the average number unemployed and the rates of unemployment increased more for blue-collar than for white-collar workers (Table 9). Within both these occupational categories there was a tendency for the relative increases in unemployment and unemployment rates to be larger among the more highly skilled. Among white-collar occupations, professional, technical, and managerial workers were more sharply affected than sales and clerical workers; and among blue-collar workers, relatively more craftsmen and operatives became unemployed than laborers. In part, the explanation lies in the declines in employment related to defense and aerospace, since a larger proportion of highly skilled workers were employed in defense and aerospace jobs than in the rest of the economy. Service occupations are less cyclically sensitive and their unemployment consequently increased less than for other occupations.

Among industries, experienced workers in manufacturing had the largest increases in unemployment, although the relative increase in construction was also substantial. About 40 percent of the increase in unemployment during the year was in manufacturing and two-thirds of this was in durable goods. The concentration of increased unemployment in durable goods manufacturing reflects the combined effect of reduced defense and space procurement and the slowdown in demand generally.

TABLE 9.—Unemployment and unemployment rates in selected occupational and industry groups, 1969 III and 1970 III

[Seasonally adjusted]

Group of workers	Unemployment (thousands of persons)		Unemployment rate (percent)	
	1969 III	1970 III	1969 III	1970 III
Total unemployment <sup>1</sup> .....	2,945	4,338	3.6	5.2
<b>Occupation:</b>				
White-collar workers.....	817	1,131	2.2	2.9
Professional and technical.....	151	229	1.4	2.0
Managers, officials, and proprietors.....	78	127	1.0	1.5
Clerical workers.....	444	574	3.2	4.1
Sales workers.....	144	200	3.0	3.9
Blue-collar workers.....	1,182	2,087	4.0	7.0
Craftsmen and foremen.....	232	515	2.2	4.9
Operatives.....	668	1,129	4.4	7.6
Nonfarm laborers.....	282	443	7.2	10.6
Service workers.....	452	577	4.5	5.6
Farmworkers.....	74	103	2.2	3.2
<b>Industry:</b>				
Private wage and salary workers <sup>2</sup> .....	2,147	3,434	3.7	5.7
Construction.....	253	485	6.8	12.3
Manufacturing.....	707	1,268	3.3	5.9
Durable.....	373	742	2.9	5.9
Nondurable.....	334	526	3.8	6.0
Transportation and public utilities.....	90	144	2.0	3.1
Wholesale and retail trade.....	556	753	4.3	5.6
Finance and service industries.....	531	772	3.5	4.8
Government wage and salary workers.....	230	255	1.9	2.0
Agricultural wage and salary workers.....	90	115	7.3	9.0

<sup>1</sup> Includes workers with no previous work experience—444,000 in 1969 III and 502,000 in 1970 III.

<sup>2</sup> Includes mining, not shown separately.

Note.—Detail will not necessarily add to totals because of independent seasonal adjustment of the various series. Occupational and industry groups relate to experienced workers.

Source: Department of Labor.

## DEFENSE SPENDING AND EMPLOYMENT

De-escalation of the Vietnam war and changes in our general purpose force planning have led to a significant reduction in the resources used for national defense. By the third quarter of 1970 defense purchases had declined by \$11.4 billion (measured in 1958 prices using the Federal Government purchases deflator), or 18 percent, from its recent peak in the second quarter of 1968. Over the same period total GNP in 1958 prices increased by \$22.0 billion. An additional \$33.4 billion of real output, therefore, became available for nondefense uses as the combined result of economic growth and the redirection of resources away from defense.

Consumers, whose real expenditures rose by \$31.2 billion, were the major beneficiaries of this change. Also, State and local government purchases increased by \$5.0 billion, and net exports by \$1.6 billion. The main off-

setting decline occurred in gross private investment (\$3.0 billion), where a \$2.0 billion increase in fixed investment was accompanied by a drop of \$4.9 billion in investment in business inventories. A decline of \$1.5 billion also occurred in Federal nondefense purchases.

The reduction in defense spending was itself related to the general program of restraint to reduce inflation. The overall program of restraint, however, permitted continued growth in some sectors of the economy, primarily the sectors producing goods and services for personal consumption, and at the same time reduced resources used to produce defense goods and services. National economic policies were aimed at two objectives simultaneously, namely, a reduction in inflation and a redirection of resources from defense to nondefense uses.

Each of these transitions could have been more easily accomplished if it had not been necessary at the same time to effect the other. If the past and current inflation had not been in the picture it would have been possible safely to maintain more expansionist pressures in the economy and the labor market; resources released from defense uses could have been more quickly redeployed to new uses; and workers affected by defense cutbacks would have found it easier to obtain new jobs. On the other hand, the program of fiscal restraint would have had more effect on prices and less on unemployment if the restraint had been more generally spread over the economy, because the required job shift would have been smaller and the downward pressure on prices of nondefense output greater. A large fraction of the reduction in demand occurred in sectors of the economy producing defense products, with little direct effect on the prices of most interest to consumers. A significant cutback in any large sector of the economy, particularly one that is geographically concentrated, is likely to result in a disproportionate amount of transitional unemployment relative to its effect on the general price level.

#### *Employment Attributable to Defense Expenditures*

Employment attributable to Department of Defense expenditures will have decreased nearly 1.8 million workers from its highest recent level in fiscal year 1968 to fiscal 1971 (Table 10). Most of the drop is in private employment attributable to defense expenditures, which is estimated to decline by 1.3 million workers over the period. A reduction in the Armed Forces accounts for much of the rest of the decrease.

The estimates of average employment for fiscal years indicate that the largest reductions in defense employment took place during calendar years 1969 and 1970, and the decline was most pronounced during 1970. The number of persons in the Armed Forces was reduced about 400,000 during 1970, and civilian employment for the Department of Defense declined by nearly an additional 100,000 during the year. Private employment may have been reduced by approximately 600,000 during the year. All told, there

TABLE 10.—*Employment attributable to Department of Defense expenditures and personnel requirements, 1965 and 1968–71*

[Thousands; fiscal years]

Type of employment	1965	1968	1969	1970	1971 <sup>1</sup>
Total Department of Defense-generated employment.....	5,759	8,129	7,944	7,374	6,354
Public employment.....	3,657	4,555	4,644	4,474	4,054
Federal military.....	2,716	3,460	3,534	3,398	3,034
Federal civilian.....	928	1,075	1,090	1,056	1,000
State and local.....	13	20	20	20	20
Private employment.....	2,102	3,574	3,300	12,900	2,300

<sup>1</sup> Estimate.

Source: Department of Labor.

was an estimated decline of 1.1 million jobs attributable to Department of Defense expenditures during 1970.

### *Defense-Related Private Employment*

Private employment generated by defense spending is diffused over a broad range of industries and occupations. About two-thirds of the private employment generated by defense spending, however, has been in the manufacturing sector, although this sector accounts for about one-third of the private nonagricultural employment of wage and salary workers. Within manufacturing, employment attributable to defense spending has been most heavily concentrated in ordnance and aircraft. It was also concentrated among relatively skilled workers. A remarkably high proportion of workers in certain jobs calling for extremely specialized skills have been dependent on defense spending.

Estimates of private employment attributable to defense spending have been constructed for fiscal year 1965, just prior to the increase in Vietnam spending, and for fiscal year 1968, when private employment generated by defense spending reached its peak. Estimates of increases in private employment attributable to increased defense spending occurring during the Vietnam buildup are shown for selected industries in Table 11 along with the changes in employment in these industries that have occurred since 1968.

The two industries where defense generated the highest share of total employment were ordnance and accessories and aircraft and parts. Both industries, but particularly the aircraft and parts industry, employed large numbers of workers in supplying defense products. Defense employment was also relatively high in the manufacture of machine shop products, radios, television and communication products, electronic components and accessories, and other transportation equipment. Although a large number of workers were employed in transportation and warehousing services, the industry was not heavily dependent on defense even in 1968.

Employment attributable to the increase in defense expenditures during the Vietnam buildup was generally concentrated in those industries already

TABLE 11.—*Private nonagricultural employment attributable to Vietnam in fiscal year 1968, and employment changes from 1968 III to 1970 III*

Industry	Vietnam-attributed employment in fiscal year 1968			Change in total employment, 1968 III to 1970 III	
	Number (thousands)	Percent distribution	Percent of total industry employment	Change in number (thousands)	Percentage change
Total <sup>1</sup> .....	1,392.5	100.0	2.4	1,684	3.0
Manufacturing.....	948.1	68.1	4.9	-493	-2.5
Ordnance and accessories.....	140.3	10.1	42.3	-103	-30.2
Aircraft and parts.....	232.6	16.7	27.3	-187	-21.9
Machine shop products.....	32.8	2.4	14.4	-7	-3.2
Radio, television, and communications equipment.....	73.9	5.3	11.1	-52	-7.7
Electronic components and accessories.....	41.4	3.0	11.1	-38	-10.0
Other transportation equipment.....	20.1	1.4	6.7	4	1.3
Metals manufacturing.....	57.0	4.1	4.4	-7	-5
Other manufacturing.....	350.0	25.1	2.3	-103	-7
Services.....	412.6	29.6	1.3	2,164	6.6
Transportation and warehousing.....	164.8	11.8	6.2	21	.8
Business services.....	49.8	3.6	2.3	232	10.2
Medical and educational services and nonprofit organizations.....	34.6	2.5	.7	724	14.2
Other services.....	163.4	11.7	.8	1,187	5.2
Construction.....	14.7	1.1	.5	9	.3
Mining.....	17.1	1.2	2.8	4	.6

<sup>1</sup> Includes wage and salary employment; excludes self-employed.

Source: Department of Labor.

employing large numbers of defense workers. Aircraft, ordnance, and transportation together accounted for about 40 percent of the additional defense-related employment generated by the Vietnam buildup. These industries have consequently been most strongly affected by the cutbacks in defense spending occasioned by the withdrawal.

As shown in Table 11, manufacturing employment declined by 2.5 percent from the third quarter of 1968 to the third quarter of 1970, while total private wage and salary employment in nonagricultural industries increased by 3.0 percent. Most of the decline occurred in those manufacturing industries where a significant part of the employment was attributable to increased defense spending during the Vietnam buildup. Over half the decline in manufacturing employment occurred in the ordnance and aircraft industries, precisely those where employment attributable to Vietnam spending was particularly high.

Workers producing goods and services for defense are generally more skilled than the civilian labor force as a whole. Among white-collar workers a higher percentage of professional and managerial workers were employed in defense-generated jobs than in the entire economy. Among blue-collar workers, craftsmen and operatives were also more strongly represented in defense-generated employment (Table 12). The larger relative increases in unemployment from the third quarter of 1969 to the third quarter of 1970 for more highly skilled white-collar and blue-collar workers were in

TABLE 12.—*Civilian employment attributable to defense expenditures, by occupational group, fiscal year 1968*

Occupational group	Defense-generated employment <sup>1</sup>		Percentage distribution of total wage and salary employment
	Number (thousands)	Percentage distribution	
Total.....	4,700	100.0	100.0
Professional and technical workers.....	680	14.4	14.1
Managers, officials, and proprietors.....	414	8.8	8.3
Sales workers.....	112	2.4	6.3
Clerical and kindred workers.....	830	17.6	18.8
Craftsmen, foremen, and kindred workers.....	949	20.1	14.1
Operatives (semiskilled).....	1,233	26.4	20.8
Service workers.....	219	4.6	10.6
Laborers and farm workers.....	260	5.5	6.9

<sup>1</sup> Employment estimates cover wage and salary employees in the United States where pay is attributable to military functions of the Department of Defense. They do not include self-employed or domestic workers or U.S. citizens employed abroad other than military personnel. Farm employment, however, does include self-employed and unpaid family workers.

Note.—Detail will not necessarily add to totals because of rounding.

Source: Department of Labor.

part a consequence of the sharp reduction in defense employment, in which these workers were more heavily concentrated.

Skilled workers in certain categories, such as engineers, were heavily dependent on defense spending for their employment (Table 13). The estimated unemployment rate for engineers increased from 0.5 percent in the third quarter of 1968 to 2.4 percent in the third quarter of 1970. Nearly 60 percent of all the jobs for aeronautical engineers were generated by defense spending in 1968. Nearly 40 percent of all physicists were dependent on defense spending. A large number of airplane mechanics were employed in defense-related work, and over 50 percent of the skilled workers in this category relied on defense spending.

The geographic concentration of defense-related employment (Table 14) has also been an important factor in the uneven impact on the economy of

TABLE 13.—*Civilian employment attributable to defense expenditures for selected narrow occupational categories, fiscal year 1968*

Occupational category	Defense-generated employment	
	Number (thousands)	Percent of total employment in group
Technical engineers <sup>1</sup> .....	244	20
Aeronautical engineers.....	45	59
Electrical engineers.....	69	22
Mechanical engineers.....	49	20
Physicists.....	9	38
Machinists.....	113	19
Pattern and modelmakers.....	10	25
Sheetmetal workers.....	39	25
Airplane mechanics.....	73	54

<sup>1</sup> Includes some groups not shown separately.

Source: Department of Labor.

reduced defense spending. Major declines in demand for defense production have, of course, directly reduced the jobs available in affected areas and often prompted specialized workers to look for new employment in other locations. The multiplier effects applicable to areas with significant reductions in defense employment have further reduced demand in those areas for a wide range of economic activities.

TABLE 14.—*Geographical distribution of employment reductions in defense-related manufacturing industries, December 1967 to June 1970*

State	Percentage distribution of reductions
Total.....	100.0
California.....	34.8
Pennsylvania.....	8.1
Missouri.....	7.2
New York.....	4.5
Maryland.....	3.9
Texas.....	3.9
Illinois, Indiana, Massachusetts, Michigan, Minnesota, New Jersey, Ohio, Virginia, and Washington <sup>1</sup> .....	19.8
All other States.....	17.6

<sup>1</sup> Range from 1.3 to 3.0 percent of total.

Note.—Detail will not necessarily add to totals because of rounding.

Source: Department of Defense.

Employment attributable to defense spending is most heavily concentrated in the Pacific Coast States and New England. Military procurement, the major category of defense spending that grew most rapidly from fiscal year 1965 to 1968 during the Vietnam buildup and also accounted for two-thirds of the decline in budget outlays from fiscal 1969 to 1971, appears to be even more highly concentrated geographically. In recent years prime contracts for military procurement awarded to firms based in California accounted for nearly 20 percent of the total value of all contracts. In fiscal year 1970, firms based in California, Connecticut, Massachusetts, New York, and Texas received almost 50 percent of the total value of prime contract awards for procurement. Actual production work may of course take place in other States; these data indicate only where most of the final processing and assembly occurs.

State-insured unemployment in California, Connecticut, and Massachusetts showed larger than average increases from the third quarter of 1969 to the third quarter of 1970—about 2 percentage points compared to 1.4 for the Nation as a whole. In contrast, State-insured unemployment rose by only 1.3 percentage points in New York, and 0.7 percentage points in Texas. The increases in New York and Texas may have been smaller than average because the relative impact of defense cutbacks was small in both States, but of course other factors are also at work. In the State of Washington, for example, insured unemployment increased by 5.7 percentage points as a result of declines not only in military procurement but also in the demand for civilian aircraft and lumber. Michigan also experienced a relatively large increase of 2.6 percentage points in insured unemployment

during the year, because production of consumer durables and autos is heavily concentrated there.

Nearly 35 percent of reported reductions in defense-related employment occurred in California (Table 14), disproportionately affecting the jobs of scientists and engineers in the aerospace industry in Southern California. Several other States experienced significant shares of the reduction in defense-related manufacturing employment, but the other reductions in employment were in general smaller and less concentrated geographically than in California. Local labor market adjustment problems were experienced by many communities throughout the Nation, of course, where firms producing defense products were a major source of employment in the locality.

To assist in the adjustment of communities seriously affected by defense cutbacks, the President on March 4, 1970, set up an Interagency Economic Adjustment Committee under the chairmanship of the Secretary of Defense. The Committee brings together two kinds of agencies. One group has economic adjustment itself as a primary function; this includes the Manpower Administration of the Department of Labor, the Economic Development Administration, the Small Business Administration, the Department of Agriculture, and the Council of Economic Advisers. The other group carries on functions that significantly affect the location of economic activity although this effect may not be the main purpose; this includes the Departments of Interior, Health, Education, and Welfare, Housing and Urban Development, and Transportation, as well as the General Services Administration. The Department of Defense, drawing upon its long experience with base-closings and similar problems, provides leadership as well as other resources.

The fundamental purpose in the Committee's approach is to assure that all the services and facilities of the Federal Government are available to the affected communities. Although the Committee provides general guidance and support, its work is carried on by task forces organized for each community being served. The task force visits the community and assists the local leaders, whose initiative is indispensable, to prepare a plan for action. Heavy emphasis is placed on the involvement of the private sector in the community leadership structure and the execution of the economic adjustment plan. The plan would be tailored to the local situation; there is no common blueprint. Each plan would attempt to mobilize private, municipal, State, and Federal resources to create an economic base which will utilize the local labor and capital. The Federal contribution to the combined effort, in addition to advice, may include economic and engineering surveys, public facilities grants, small business loans, surplus real property, and funds for manpower training programs, as well as Federal expenditures to carry out a variety of programs. Not all of this help is available or would be useful in each case. Moreover, some hardships and dislocations are unavoidable as cutbacks are made in areas where defense employment has been a large part of the total. However, the Committee's operations have served in a number of cases to ease the transition from defense-related industry.

## PRICES AND WAGES

The purpose of slowing down the rise in demand from 1969 to 1970 was to moderate the rise of prices. On this subject two things can be said. First, the evidence for the year suggests that the purpose is being achieved: the rate of inflation is subsiding and the impact upon different prices and costs is approximately in line with what might have been expected. Prices, first of raw materials and then of finished goods, began rising less rapidly; and wages of unorganized workers also began to rise more slowly, although the rate of increase for organized workers has not yet shown this change. Second, the process of disinflation during the year, given the degree of economic slack that has existed, has been disappointingly slow.

### PRICES, COSTS, WAGES, AND PRODUCTIVITY

The rate of inflation for the most comprehensive price measure, the GNP deflator, reached a peak in the first quarter of 1970; in the next three quarters it recorded smaller rates of increase than in the first (Table 15). The difference is accentuated by the fact that the first-quarter index includes a Federal Government pay raise, which had the effect of adding 1.2 percentage points to the annual rate of increase in that quarter. The movement of the deflator within the year was slightly upward in the third quarter and sharply upward in the fourth, but these changes are mainly a reflection of the auto strike, given the nature of the deflator.

The deflator employs current period weights and is sensitive to shifts in output toward or away from goods and services whose prices have risen much more or much less than the average since the index base period (1958). The price of new automobiles has risen much less than average since 1958, and the overall deflator is greatly influenced by shifts in auto production. This is brought out clearly in Table 15, which shows the de-

TABLE 15.—*Changes in GNP deflators (total and excluding autos) and in real gross auto product, 1969 I–1970 IV*

[Seasonally adjusted]

Quarter	Percentage change from preceding quarter		
	Implicit price deflators (annual rates)		Real gross auto product
	Total GNP	GNP excluding autos	
1969: I.....	4.7	5.2	2.8
II.....	5.0	4.5	-9.8
III.....	5.6	6.1	7.5
IV.....	4.9	4.7	-5.3
1970: I.....	6.4	6.2	-13.9
II.....	4.3	4.9	13.7
III.....	4.6	4.2	-3.3
IV <sup>1</sup> .....	5.7	4.2	-36.8

<sup>1</sup> Preliminary.

Source: Department of Commerce.

flator, the deflator calculated by excluding auto GNP (column 2), and the associated movement in real auto GNP (column 3).

A partial solution to this problem is provided by the use of base period weighted indexes, which is the method used to construct conventional indexes like the consumer price index and wholesale price index. It is not an ideal solution mainly because weights may become outdated as relative prices and buying habits change. For such a purpose the Commerce Department has calculated three alternative measures of total price change that use base period weights; for two of these alternatives the weights are fixed (columns 2 and 3 of Table 16). All three of the alternatives show a retardation of the price rise as compared to the first quarter, but in varying degrees. Two of the three show an acceleration from the third to the fourth quarter.

Although it is helpful to look at prices for the whole economy a better picture is obtained by looking at the private nonfarm sector, where some of the relationships among prices, costs, and wages may be seen. When this is done for the past 2 years or so it is apparent that both the rate of price increases and the rate of wage increases have been fairly stable (Table 17). However, the rate of increase of productivity improved markedly after the first quarter of 1970 and correspondingly reduced the rate of increase of unit labor costs. During the earlier quarters, the rapid rise of unit labor costs was absorbed in a reduction of other components of price, essentially in profits per unit. As unit labor costs slowed down, profits per unit recovered somewhat later but they remained exceptionally low.

More cost detail is available for the nonfinancial corporate sector. Here too it may be seen that a slower rise in unit labor costs from the first to the third quarter was not matched by a slower rise in prices. All nonlabor costs taken together continued to rise very rapidly, even though the pace was somewhat less than it had been over the preceding half year. Profits per unit

TABLE 16.—*Alternative measures of price changes for gross national product, 1969 I–1970 IV*

[Seasonally adjusted annual rates]

Quarter	Percentage change from preceding quarter			
	Implicit GNP deflator	Alternative deflators for GNP		
		1958 weights	1965 IV weights	Chain
1969: I.....	4.7	4.5	4.5	4.5
II.....	5.0	5.2	5.0	4.9
III.....	5.6	6.5	6.1	6.0
IV.....	4.9	5.3	5.0	4.9
1970: I.....	6.4	6.4	5.9	5.9
II.....	4.3	5.1	5.0	5.0
III.....	4.6	4.9	4.7	4.4
IV <sup>1</sup> .....	5.7	4.9	5.0	5.0

<sup>1</sup> Preliminary.

Source: Department of Commerce.

TABLE 17.—*Changes in costs and prices in the total private nonfarm economy and in nonfinancial corporations, 1967 III to 1970 III*

Item	Percentage change (seasonally adjusted annual rates)				
	1967 III to 1968 III	1968 III to 1969 III	1969 III to 1970 III	1969 III to 1970 I	1970 I to 1970 III
<b>Total private nonfarm economy:</b>					
Labor compensation per man-hour.....	7.2	6.8	7.0	7.2	6.8
Output per man-hour.....	2.5	.0	1.4	-1.3	4.2
Unit labor costs.....	4.5	6.8	5.5	8.6	2.5
Real compensation per man-hour.....	2.7	1.2	1.2	1.1	1.3
Prices (deflator).....	3.5	4.5	4.7	4.5	4.9
<b>Nonfinancial corporations:</b>					
Total price per unit of output <sup>1</sup> .....	2.5	3.7	4.2	4.1	4.2
Labor compensation.....	2.4	5.6	5.7	8.5	3.0
Corporate profits and inventory valuation adjustment.....	3.6	-5.8	-12.4	-25.5	2.9
Other costs.....	2.2	5.5	9.2	10.7	7.7
Capital consumption allowances.....	.0	3.7	8.9	11.0	6.9
Indirect business taxes plus transfer payments less subsidies.....	2.0	4.9	9.3	9.5	9.0
Net interest.....	13.0	15.4	10.0	13.8	6.3

<sup>1</sup> Current dollar cost per unit of 1958 dollar gross product originating in nonfinancial corporations.

Sources: Department of Labor and Department of Commerce.

rose moderately as businessmen attempted to bolster margins that had been squeezed badly in the preceding half year and had declined the year before. Even with the rise in the second and third quarters of 1970, unit profits were lower than at any time since 1961, except for early 1970.

### CONSUMER PRICES

The consumer price index increased at a seasonally adjusted annual rate of 5.6 percent from the end of 1969 to November 1970 after a 6.1-percent rise during 1969; the latter was the largest increase since 1947. There was little evidence of a slowdown in the first half of 1970, when the total index rose at an annual rate of 6.0 percent; but from June to November the rate of advance eased to 4.6 percent (Table 18 and Chart 4). Sharply reduced rates of increase for food and more moderate reductions in the rise of service prices accounted for the general deceleration from June to November. Because services carry a larger weight than food in the CPI, the slowdown in the total CPI from the first to the second half of 1970 was influenced more by services, with its lesser slowdown, than by food, with its sharp deceleration. Prices of nonfood commodities showed about the same rate of increase in both periods.

Prices of services continued to rise much more rapidly than average in 1970 but slowed down from a 9.2 percent annual rate of increase in the first half to 7.1 percent in the second. Most of the broad categories of services showed a similar pattern. The most pronounced slowdown, although rates were very high to begin with, occurred in household services excluding rent, where as a result of easing in credit markets interest rates leveled out after very sharp increases in the first half (mortgage interest rates are in-

TABLE 18.—Changes in consumer prices, 1969–70

[Seasonally adjusted except as noted]

Group	Percentage change (annual rate) <sup>1</sup>				Contribution to total percentage change in 1970 <sup>2</sup>	
	1969		1970		First half	Second half <sup>3</sup>
	First half	Second half	First half	Second half <sup>3</sup>		
All items.....	6.4	5.9	6.0	4.6	6.0	4.6
Food.....	6.2	8.2	3.3	.9	.7	.2
Commodities less food.....	5.3	3.5	4.6	4.5	1.9	1.8
Durable commodities <sup>4</sup> .....	5.6	3.4	5.5	5.3	.9	.9
New cars.....	2.4	2.0	1.9	8.7	.0	.2
Household durable commodities.....	5.1	1.7	2.8	3.2	.1	.2
Nondurable commodities.....	5.0	4.0	3.6	4.1	.9	1.0
Apparel commodities.....	5.7	5.0	2.9	5.0	.3	.5
Other nondurable commodities <sup>4</sup> .....	4.6	3.3	4.1	4.2	.6	.6
Fuel oil and coal.....	6.0	-.5	7.0	8.9	.0	.1
Services <sup>5</sup> .....	7.7	7.1	9.2	7.1	3.3	2.6
Rent <sup>5</sup> .....	3.1	4.3	4.0	4.5	.2	.2
Household services less rent.....	9.6	9.4	11.1	8.3	1.6	1.2
Transportation services.....	8.0	9.0	11.8	10.4	.6	.5
Medical care services.....	9.3	4.8	8.8	7.4	.5	.4
Other services.....	4.3	5.2	6.1	5.3	.4	.3
Special groups:						
Housing <sup>5</sup> .....	6.6	6.8	3.0	6.7		
Apparel and upkeep.....	5.4	5.0	3.2	4.7		
Transportation.....	7.0	3.5	6.1	6.9		
Health and recreation <sup>5</sup> .....	5.3	4.9	6.0	5.4		

<sup>1</sup> Percentage change over the period indicated, i.e., from December 1968 to June 1969 for the first half of 1969.<sup>2</sup> Based on the relative importance of groups in the December 1969 index, not seasonally adjusted. Calculations by Council of Economic Advisers.<sup>3</sup> June to November; December not available.<sup>4</sup> Includes some groups not listed.<sup>5</sup> Not seasonally adjusted.

Source: Department of Labor (except as noted).

cluded in the service section of the CPI). Cuts in conventional mortgage rates in late 1970 are already being reflected in the CPI, but the reduction, announced in early December, in the maximum permissible rates on VA and FHA mortgages will not be apparent until January and February, respectively.

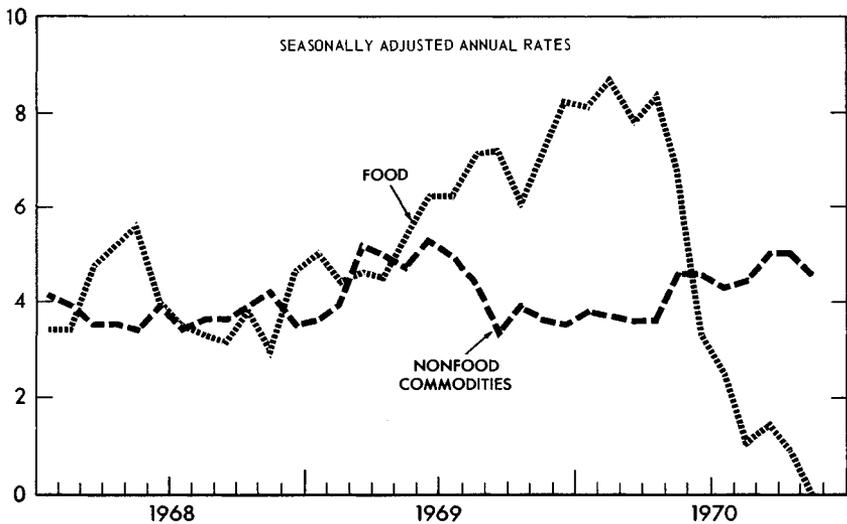
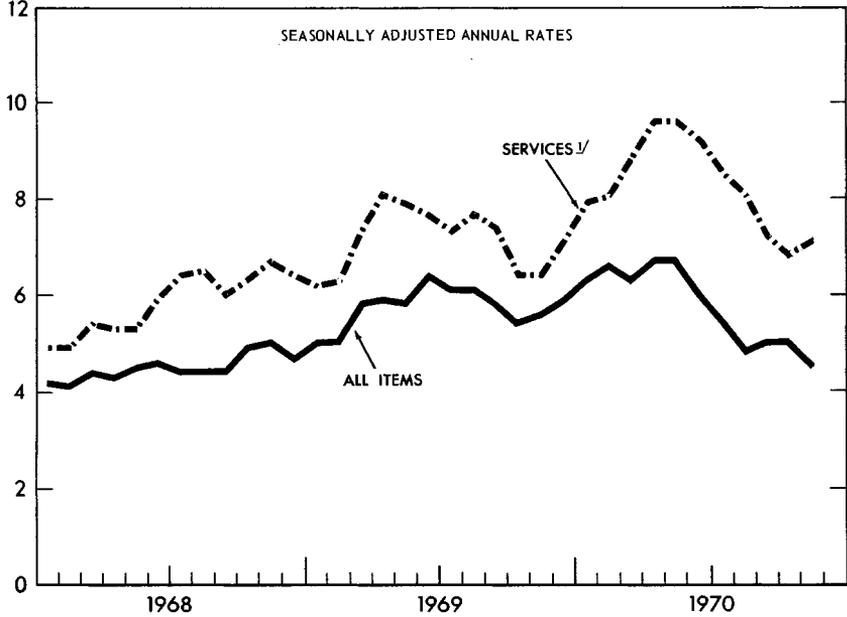
Perhaps the greatest disappointment on the price front has been the behavior of nonfood commodities, which in the past have typically responded with a lag to a weakening in demand. In the second half of 1969, for example, there was some suggestion that this pattern would be repeated, since prices rose at a distinctly slower pace than was evident in the first half of that year. However, the rate of inflation in this category accelerated in the first half of 1970 to 4.6 percent and failed to slow down in the second, at least through November.

The most pronounced acceleration was evident for new cars. Car prices failed to show the usual discounts this past summer, apparently because dealers expected a strike. In October and November, substantially higher suggested retail prices on the 1971 models were announced by car manufacturers. The BLS index for new cars in November showed a 5-percent rise over a year earlier, the largest such gain in over 10 years.

Chart 4

# Changes in Consumer Prices

PERCENTAGE CHANGE FROM 6 MONTHS EARLIER



<sup>1</sup>/<sub>3</sub>CHANGES BASED ON UNADJUSTED INDEXES SINCE THESE PRICES HAVE LITTLE SEASONAL MOVEMENT.  
SOURCE: DEPARTMENT OF LABOR.

An acceleration of price increases was also evident in apparel, where demand has not been strong and where competitive markets are the rule. The failure of these prices to slow down would support the cost-push explanation of price behavior unless what we now see is only the prelude to a very slow response to the weakening in demand. Prices of fuel oil and coal and gasoline also rose more rapidly in the second half.

Retail food prices continued to increase in the first quarter of 1970 after having risen sharply in the final quarter of 1969. Although the rise from March to November was only 1 percent at an annual rate some decline might have been expected in view of falling farm prices. Two conditions explain the fact that food prices did not fall. First, about 60 percent of the final costs of food are accounted for by the spread between farm prices and the retail prices of food purchased for home consumption. In 1969 this spread rose 1.9 percent, somewhat more than in previous years. But in the third quarter of 1970 the spread broadened substantially to 7.1 percent above the spread in the same period a year earlier. The spread normally widens when farm prices are falling and narrows, at least temporarily, when farm prices are rising. In part, the sharp gains in 1970 reflect the acceleration of the increases in wages and other processing and marketing costs that have resulted from the inflation of the late 1960's. The second factor was the continuing rapid rise in the prices of food eaten away from home, a reflection of substantial increases in restaurant operating costs.

#### WHOLESALE PRICES—INDUSTRIAL

Wholesale prices rose 2.3 percent from December 1969 to December 1970 after a 4.7-percent rise during 1969. The pronounced slowdown was mainly a reflection of the easing of upward pressures on prices of farm products and foods, which had led the inflationary surge in 1969. The slowdown in the rise of industrial products was much smaller—from 3.9 to 3.6 percent. The deceleration of the WPI within 1970 was mainly a reflection of industrial prices, which advanced at a 3.8 percent annual rate from December to June and at a 3.4 percent rate from June to December (Table 19 and Chart 5).

Prices of several industrial categories either declined or rose more slowly in the second half than in the first—textiles, paper, metals, furniture, and nonmetallic mineral products—and for some of those that accelerated, such as hides and rubber, the rate of inflation from June to December was not high. Prices of metals and metal products declined in the second half after rising at a 10-percent rate from the beginning of 1969 to mid-1970. The falling world market for copper and other nonferrous metals was a major factor in this development. Prices of ferrous and nonferrous scrap dropped late in the year. Prices of iron and steel mill products rose little after midyear following exceptionally large increases in the first half.

Prices of three important groups showed accelerated increases during 1970—fuel, transportation equipment, and machinery and equipment. A

TABLE 19.—Changes in wholesale prices, 1969–70

[Seasonally adjusted except as noted]

Commodity group	Percentage change (annual rate) <sup>1</sup>			
	1969		1970	
	First half	Second half	First half	Second half
All commodities.....	5.3	4.2	2.6	2.1
Farm products.....	10.5	5.8	-5.3	-3.4
Processed foods and feeds.....	9.0	4.7	1.0	.7
Industrial commodities.....	3.6	4.2	3.8	3.4
Textile products and apparel.....	.6	2.9	1.0	-1.7
Hides, skins, leather, and related products.....	3.7	2.3	.3	1.9
Fuels and related products and power.....	4.5	3.3	3.5	17.3
Chemicals and allied products.....	1.0	1.4	3.1	2.6
Rubber and plastic products.....	1.0	5.3	.4	2.4
Lumber and wood products.....	-7.3	-9.5	-5.2	-3.6
Pulp, paper, and allied products.....	5.3	3.1	4.2	1.5
Metals and metal products.....	9.5	10.0	9.0	-2.8
Machinery and equipment.....	3.3	5.2	4.1	4.6
Furniture and household durables.....	2.5	2.0	3.0	2.0
Nonmetallic mineral products.....	5.6	4.1	5.0	4.6
Transportation equipment <sup>2</sup> .....	.6	4.8	1.2	11.1
Miscellaneous products.....	3.9	3.7	6.5	2.6
By stage of processing:				
Crude materials for further processing.....	16.2	1.3	2.0	-5.0
Intermediate materials, supplies, and components.....	4.1	3.8	4.3	2.3
Finished goods (including raw food and fuel).....	4.6	5.0	1.3	3.1
Consumer finished foods.....	8.1	7.9	-2.8	-2.0
Other consumer nondurable goods.....	2.5	4.0	2.6	4.8
Consumer durable goods.....	2.0	2.2	2.7	5.9
Producer finished goods.....	3.4	5.5	3.7	6.2

<sup>1</sup> Changes are shown over the period indicated; i.e., December 1968 to June 1969 for first half of 1969.<sup>2</sup> Not seasonally adjusted.

Source: Department of Labor.

variety of supply problems, discussed in Chapter 4, was mainly responsible for substantial rises of spot prices of coal, coke, petroleum, and gas. Electric power rates quickly responded to these increased costs of primary energy with the largest increases in many years. Rising costs, chiefly of labor, in the face of sluggish demand were the key factors in the accelerated rise in equipment prices.

## FARM PRICES

Prices received by farmers reached high levels in early 1970, after a rise that began late in 1968. Reduced supplies of livestock commodities, particularly of eggs and hogs, accounted for much of the increase. Fruit and vegetable prices also rose substantially, but field crop prices were relatively stable in the early part of 1970. As a whole, farm prices were 8½ percent higher in the first quarter of 1970 than in the first quarter of 1969.

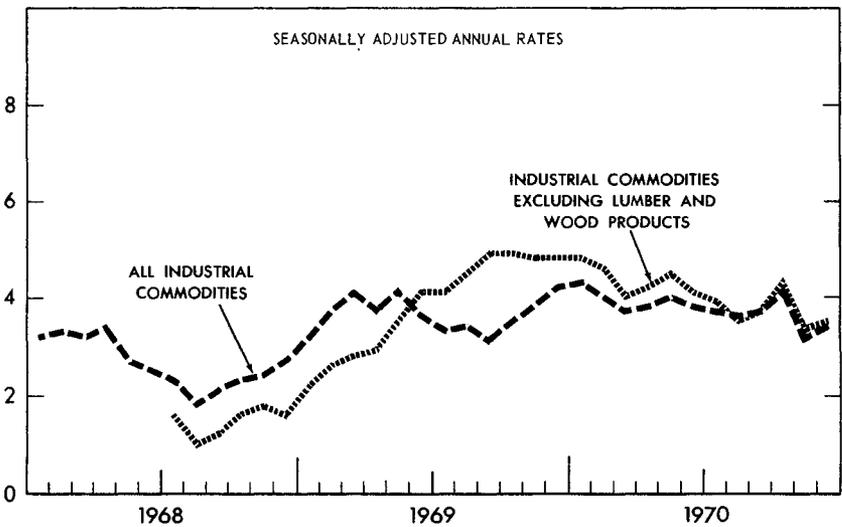
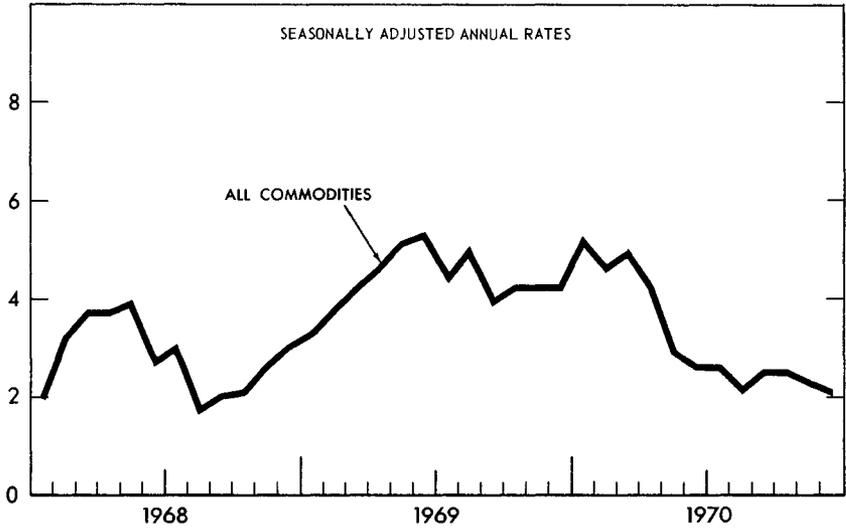
Beginning in April, farm prices started a downward path, and by October they were lower than a year earlier. Prices of livestock led the declines. A sharp increase in supplies of hogs in the third and fourth quarters continued the downward pressure on livestock prices.

Crop prices followed a pattern just the reverse of livestock. After sta-

Chart 5

# Changes in Wholesale Prices

PERCENTAGE CHANGE FROM 6 MONTHS EARLIER



SOURCE: DEPARTMENT OF LABOR.

bilizing in the first quarter, crop prices were stronger through the remainder of the year. To some extent the rise in these prices was a consequence of Federal cropland adjustment programs, which had diverted substantial acreage from production in the past 2 years, and the large stocks of commodities built up earlier were thus somewhat diminished. In addition, export demand, particularly for wheat and soybeans, was strong during the year. But the most important influence was an unexpected loss of 15 percent of the anticipated corn crop because of poor weather in the western corn belt and a new strain of corn leaf blight, which spread from the South into several major States in the corn belt.

Higher crop prices in the second half of 1970 were more than offset by declining livestock prices, so that farm prices as a group declined through the year. Because prices were relatively high early in 1970, however, the 1970 average exceeded that of 1969 and indeed was the highest since the peaks of 1951-52.

#### WAGES AND COMPENSATION

The large wage increases that have become common in recent years continued with few exceptions in 1970. Compensation per hour in the private economy increased by 7.1 percent in 1970, showing little change from the 7.2-percent rate of increase in 1969. Although increases in average gross hourly earnings (Table 20) were smaller in 1970 than in 1969 in all industries except contract construction and wholesale trade, most of this slowdown appears to have been due to reductions in overtime and to relative and absolute declines in employment in high-wage industries. Large num-

TABLE 20.—Increases in average gross hourly earnings of private nonagricultural production or nonsupervisory workers, 1960-70

Industry	Percentage change per year					
	1960 to 1965	1965 to 1966	1966 to 1967	1967 to 1968	1968 to 1969	1969 to 1970 <sup>1</sup>
Total private.....	3.2	4.5	4.7	6.3	6.7	5.9
Mining.....	2.3	4.5	4.6	5.0	7.5	6.7
Contract construction.....	3.7	5.1	5.7	7.3	8.4	9.2
Manufacturing.....	2.9	4.2	4.0	6.4	6.0	5.3
Durable goods.....	2.8	3.9	3.4	6.3	6.3	5.0
Nondurable goods.....	2.9	3.8	4.9	6.6	6.2	5.8
Wholesale and retail trade.....	3.5	4.9	5.2	7.1	6.7	5.9
Wholesale trade.....	3.1	4.6	5.5	5.9	5.9	6.5
Retail trade.....	3.7	4.9	5.2	7.5	6.5	6.1
Finance, insurance, and real estate.....	3.4	3.3	4.5	6.6	6.2	5.1
Services.....	<sup>2</sup> 5.7	5.9	5.5	6.1	8.2	8.0
Transportation and public utilities.....	<sup>2</sup> 5.2	2.6	4.2	5.6	6.1	6.1

<sup>1</sup> Preliminary.

<sup>2</sup> Data not available for years 1960 through 1963; percentage change from 1964 to 1965.

Note.—Data relate to production workers in mining and manufacturing, to construction workers in contract construction, and, generally, to nonsupervisory workers in all other industries.

Source: Department of Labor.

bers of relatively high-wage automobile workers were, of course, off the payroll during the General Motors strike and their omission accentuated the apparent slowdown in average earnings. Moreover, quarterly data show that in most industries hourly earnings were rising more rapidly in the second half of the year than in the first.

Wage increases negotiated under major collective bargaining agreements continued to accelerate in 1970. Median first-year increases in wages and benefits were 12.4 percent compared to 10.9 percent in 1969 and 8.1 percent in 1968 (Table 21). Median increases averaged over the life of the contract were 8.8 percent in 1970, indicating the continuation of "front-end loading" of collective bargaining agreements.

Reports of large wage increases in individual collective bargaining agreements can give a misleading view of wage and compensation changes in the entire economy. Although the collective bargaining calendar was heavy in 1970, only about 6 percent of the civilian labor force was involved in major collective bargaining settlements during 1970, that is, settlements involving 1,000 or more employees. Furthermore, the size of settlements and the pattern of increases during the past few years have varied widely among industries.

First-year wage settlements in manufacturing industries, which include about 50 percent of all the workers covered by agreements negotiated in

TABLE 21.—*Wage and benefit decisions, 1965–70*

Measure	Median annual percentage rate of increase in decisions reached in—					
	1965	1966	1967	1968	1969	1970 <sup>1</sup>
<b>Major collective bargaining situations:<sup>2</sup></b>						
<b>Wage and benefit change (packages):</b>						
Over life of contract.....	3.3	4.0	5.2	6.0	7.4	8.9
First year.....	( <sup>3</sup> )	5.8	7.3	8.1	10.9	12.4
<b>Negotiated wage-rate increases averaged over life of contract:</b>						
All industries.....	3.3	3.9	5.0	5.2	6.8	8.8
Manufacturing.....	( <sup>3</sup> )	3.8	5.1	4.9	5.8	6.6
Nonmanufacturing.....	( <sup>3</sup> )	3.9	5.0	5.9	8.5	12.3
<b>Negotiated first-year wage-rate increases:</b>						
All industries.....	3.9	4.8	5.7	7.2	8.0	10.2
Manufacturing.....	4.1	4.2	6.4	6.9	7.0	8.0
Nonmanufacturing.....	3.7	5.0	5.0	7.5	10.0	15.7
<b>Wage increases in manufacturing:</b>						
All establishments.....	3.7	4.2	5.3	6.0	6.2	7.0
Union establishments.....	3.6	4.1	5.5	6.5	6.9	7.7
Nonunion establishments.....	4.0	4.4	5.0	5.0	6.0	5.5

<sup>1</sup> Preliminary. Based on final data for first 9 months.

<sup>2</sup> Except for packages, data are for contracts affecting 1,000 workers or more. Package cost estimates are limited to settlements affecting 5,000 workers or more (10,000 in 1965). The package cost of a few settlements affecting relatively few workers has not been determined.

<sup>3</sup> Not available.

<sup>4</sup> Based on settlements affecting 10,000 workers or more.

Note.—Possible increases in wages resulting from cost-of-living escalator adjustments (except those guaranteed in the contracts) were omitted.

Source: Department of Labor.

1970, averaged 8.5 percent (mean). Quarterly increases in negotiated first-year wage adjustments in manufacturing have shown no acceleration since the second quarter of 1969. During the same period, mean first-year wage adjustments in nonmanufacturing rose substantially, from 10.7 to 15.1 percent.

Wage rate increases in nonmanufacturing industries accelerated much more rapidly than those in manufacturing (Table 21), mainly because of the large settlements in contract construction and trucking. First-year wage increases in construction were 15.7 percent in the first 9 months of 1970; increases over the life of the contract were 13.4 percent. As shown in Table 22, over 50 percent of the construction workers affected by these settlements received first-year wage increases of 15 percent or more, compared to only 5 percent of similarly affected manufacturing workers.

The contrast between the rate of increase in wages in manufacturing and the rate in nonmanufacturing is also evident in the deferred wage adjustments that go into effect in 1971. Deferred increases averaged 4.9 percent in manufacturing, as compared to 10.8 percent in nonmanufacturing and 13.3 percent in construction.

Changes in overall wage rates reflect both the proportion of workers receiving increases and the size of the increases they receive. Although new wage increases for nonunion workers in manufacturing have been lower than those for unionized workers since 1963, median increases in overall (effective) wages for nonunion workers have exceeded those for unionized workers in 4 out of 5 years ending with 1969. The prevalence of long-term collective bargaining agreements in recent years has resulted in a

TABLE 22.—*First-year changes in wage rates in collective bargaining agreements covering 1,000 workers or more negotiated in the first 9 months of 1970*

Type and amount of wage-rate action <sup>1</sup>	Percent of workers affected			
	All industries	Manufacturing	Nonmanufacturing	
			Total	Construction
Total increases.....	100	100	100	100
Under 5 percent.....	1	1	1	( <sup>2</sup> )
5 and under 7 percent.....	6	11	2	( <sup>2</sup> )
7 and under 9 percent.....	25	46	12	5
9 and under 11 percent.....	20	31	12	11
11 and under 13 percent.....	10	3	15	14
13 and under 15 percent.....	5	2	6	16
15 percent and over.....	33	5	52	53
Number of workers (thousands).....	2,601	1,009	1,592	504
Mean adjustment (percent).....	13.2	8.5	16.0	17.5
Median adjustment (percent).....	10.2	8.0	15.7	15.7

<sup>1</sup> Percent of estimated average hourly earnings, excluding overtime.

<sup>2</sup> Less than 0.5 percent.

Note.—Data are preliminary.  
Detail will not necessarily add to totals because of rounding.

Source: Department of Labor.

more sluggish response of overall wage changes of unionized workers to economic conditions, but the new increases they received were correspondingly larger.

Agreements negotiated in the first 9 months of 1970 called for wage increases for unionized workers in manufacturing that were higher than those specified in agreements in the same period of 1969, and almost all workers received some increase. For the nonunion sector, however, both the relative number of workers receiving increases and the size of the increases they received in 1970 were lower than in the first three quarters of 1969. Hence, overall wage increases in the nonunion sector of manufacturing can be expected to show a significant slowdown for the year as a whole.

#### WHY IS THE INFLATION SO STUBBORN?

Even though there are now signs that the rate of inflation is subsiding, it is certainly also true that the inflation has been and remains exceptionally persistent. Observation of previous inflationary experience, such as that of 1955–57, suggests that, while the absolute level of prices is unlikely to fall, the rate of increase of prices is likely to decline after a moderate lag as slack in the economy emerges. More sophisticated econometric analysis of the relation between the behavior of prices and a large number of variables that might help to explain it—such as the level and rates of change of unemployment, the gap between actual and potential output, past prices, and the like—did not generally predict the rate of inflation experienced in 1970, given the actual conditions in 1970.

Though the reasons for the stubbornness of the inflation in 1970 are not fully clear, two main explanations are usually offered. One relates the persistence of the inflation, after corrective measures have been taken, to the duration and magnitude of the preceding inflationary boom and to the historical context in which it occurred. The other would trace the cause to structural changes in the economic system, especially but not exclusively connected with the concentration of economic power.

The first explanation relies heavily on the momentum built up by the inflationary pressure which began in mid-1965 and continued well into 1969, although by then steps had been taken to curb it. This was already a long inflation that had reached a rate not equaled since the first quarter of 1951, and it generated a momentum exponentially greater than, although not qualitatively different from, that experienced earlier. The meaning of “momentum” can be illustrated by the behavior of wages. There were in 1970 a large number of built-in wage increases—the second- and third-year increases provided for by contracts negotiated in 1968 and 1969. Since these contracts had been negotiated in highly inflationary circumstances, the second- and third-year increases they provided were large, larger than the corresponding increases of earlier years. Many new contracts negotiated in 1970 were successors to those that had been arranged in 1967, a year when demand was weak and some thought that the inflation

might be ending. There was naturally great pressure in the new 1970 contract negotiations to catch up not only with the wage increases others had already gained but with the increases that had already occurred in the cost of living. After so many years of rising prices there was also a strong desire to incorporate in wage increases some protection against cost-of-living increases expected for the future.

These demands and expectations were not confined to union members. They were also present in the relations between unorganized workers and their employers. Such demands might not always have been fully met, but if they were to be resisted a marked or long period of economic slack and consequently poor profits would be required. This was especially true because the expectation of continued inflation had pervaded the whole system. Such an expectation, whose origins and strength may not be found entirely in price statistics, may have a powerful effect. For example, the outbreak of the Korean war revived the memories of World War II shortages and inflation and probably caused more inflation in 1950 than the objective situation justified. Similarly, in the late 1960's the fact that prices kept rising, despite the jawboning of 1966, despite the slowdown of 1967, and despite the tax increase of 1968 fortified the expectation of more inflation.

The momentum of inflation was not confined to wages. It can also be seen in the lagged rise of interest costs, taxes, regulated rates, and other costs or prices that joined the inflationary stream late and have kept it running.

The other explanation of the persistent inflation is that the structure of economic power and the motivation behind its use have changed in ways that push prices and wages up more violently. Various observers with different viewpoints are impressed with the apparently irresistible agglomerations of power represented by large corporations or unions. It is difficult to find objective evidence that this power on either side has increased in recent times, but it may have. There may also be in the economic sphere, as apparently in other aspects of our social life, a new impatience and restiveness about the use of power. The militancy of many union members may be a manifestation of the more general disinclination to have regard for authority.

These hypotheses are intended to explain the same phenomenon, and for the time being they may lead to the same results. But in a longer view they have different implications. The implication of the first is that persistence in general restraint of demand will finally check the momentum of the cost-price spiral and lead to a reasonably stable price-cost level. It is not a theory of a permanent dilemma between rapid inflation and high unemployment; it is only a theory of slow response. The second does imply that a permanent change in the response system has occurred, which could not be controlled by ordinary anti-inflationary policy but might require revision of economic and even social structures.

The two theories are not necessarily exclusive. It may be that the economic power structure, though it is not radically different from that of two decades ago and would not on its own cause persistent inflation,

does tend to prolong a high rate of inflation, once such a movement is generated by excessive demand. Reduction in the rate of inflation would still be achievable in the face of that type of structure, but it would come faster if the economic system were more competitive.

All of the foregoing discussion is based on the assumption that what we observe about the behavior of prices and wages in the published statistics is an accurate representation of events in the real world. We do not wish to suggest that in broad terms what is actually occurring is different from what the statistics indicate. But the statistics are far from perfect; and improved statistics, particularly at a time of transition like the present, would be of genuine help both to the policymaker and to the public at large. For the past several months, for example, there have been scattered reports of discounting from list prices in a number of industries. List prices tend to be reported in the industrial component of the wholesale price index. It may well be that discounting is not uncommon at present, just as premiums above list price may have been common when excess demand was the rule. Similarly, our data on wage rate changes in the non-unionized sector of construction and other industries leave much to be desired.

The problem goes beyond prices and wages and indeed can be extended to virtually all aspects of our economic statistics. Although this country has better statistics than any other country, the appropriate criterion is not whether we rank first but whether our data are doing the job that has to be done. There is some evidence of a lag. For example, if we take account of the Federal resources that have been devoted to the development of economic statistics since 1963 we find that the level of support has remained the same while the real economy has increased by almost one-third. Furthermore, we find we are asking much more of our data than formerly. If policy is aimed at achieving specific responses in economic activity, we must have more accurate statistical tools for measuring such changes. Better statistics are the surest way we now have of improving our economic knowledge.

#### WAGE-PRICE POLICY

The persistence of inflation during 1970 in the face of mounting unemployment heightened interest in the possibility of doing something more direct about rising prices and wages, in addition to restraining demand. This subject had been under almost continuous consideration in the Administration since February 1969. During 1969 certain steps had been taken, mainly with respect to the construction industry. In 1970, as the period of general excess demand was left behind, opportunities for direct action increased. In the absence of excess demand it was less likely that restraint exerted upon particular prices and wages would only cause some others to rise more, and it was more likely that the restraint would exert a cumulative anti-inflationary effect. Moreover, it was more probable that large price increases would result rather from inertia and erroneous expectations than from equilibrium adjustments to market conditions.

The Administration took action designed to supplement the effects of fiscal and monetary policy on inflation in two ways. First, it sought to improve the functioning of markets so that they would be less likely to generate unnecessary price and wage increases. Second, it sought to help business, labor, and the public at large to recognize the kinds of behavior that would favor progress towards a lower rate of inflation.

Actions to make the market a less likely source of inflationary pressure continued to focus heavily on the construction industry, where costs had kept on rising sharply. Steps were taken to increase the supply of skilled labor, encourage technological advances, reduce the cost of seasonal variation in construction activity, and improve the structure of collective bargaining in the industry.

The Administration also conducted a study of pricing procedures in the copper industry which may have contributed to subsequent price reductions. Restrictions on importation and production of crude oil were relaxed in order to restrain price increases for that commodity. Two, more general, measures were the establishment of an interagency Regulations and Purchasing Review Board, to determine where Federal actions were driving up prices and costs, and a National Commission on Productivity, to recommend public and private measures that would increase productivity and thus, among other things, hold down the rise of costs and prices. (The activities of both of these bodies are described in later chapters of this report.)

The Administration's attempts to inform the public about the nature and consequences of inflationary wage and price behavior were embodied in two major addresses by the President, in June and in December. In his June address the President announced that he was asking the Council of Economic Advisers to prepare a periodic *Inflation Alert* to "spotlight the significant areas of wage and price increases and objectively analyze their impact on the price level." The Council has published two issues of the *Inflation Alert* and intends to continue its publication at approximately quarterly intervals. The more general findings in the 1970 issues of the *Inflation Alert* are described in Chapter 2.

## FINANCIAL DEVELOPMENTS IN 1970

The effects of the easier monetary policy of 1970 were evident throughout the money and capital markets, though other forces had a counter effect. Long-term interest rates had reached historical highs at the end of 1969 as a result of heavy demands for credit and the tight monetary policy then being pursued. After some decline early in 1970, these rates were surpassed in June 1970, when greater uncertainties in foreign and domestic affairs, due particularly to increased tensions over developments in Southeast Asia and the reorganization of the Penn Central Railroad, produced an increased demand for liquidity. But since the middle of 1970 long-term bond rates have declined, as signs of a weakening in inflationary pressures became plainer and as other tensions subsided.

Rates on high-grade (Aaa) corporate bonds and municipals showed the most decline (Chart 6). The rate on Baa corporate bonds has remained almost unchanged. The spread between the Aaa and Baa bonds reflects the premium that investors demand for holding riskier securities. This spread typically increases during slack periods, when the economic outlook is uncertain. The demand for liquidity precipitated by the Penn Central reorganization, however, placed an added premium on quality investments. Short-term rates reached their peaks at the end of 1969. Rates turned upward in May and June of 1970 but did not surpass their previous highs. Since mid-1970, short-term rates have declined substantially, showing more improvement than long-term rates.

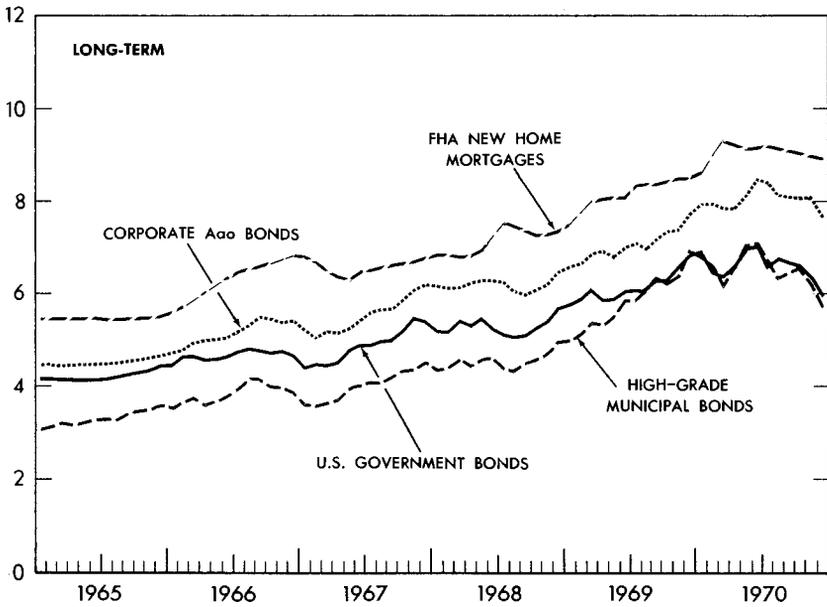
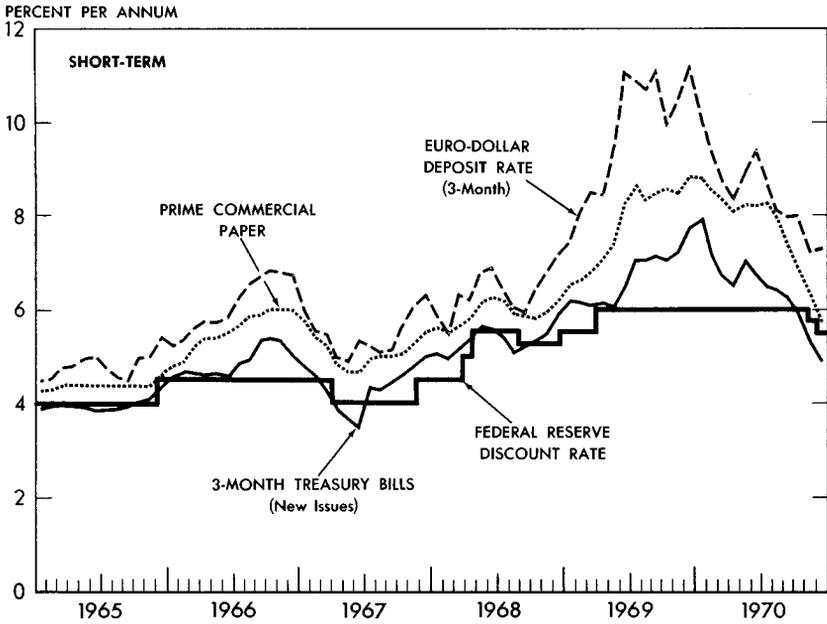
From the last part of November 1970 through the middle of December there was a sharp decline in both short- and long-term interest rates. The Aaa corporate bond rate dropped 46 basis points to 7.59 percent, and the Treasury bill rate fell 50 basis points to 4.78 percent between November 20 and December 18. Explanations for this abrupt decline in rates commonly point to four causes: the reduction in the demand for short-term credit because of the General Motors strike, expectations of an easier money policy, the present and expected sluggishness of business, and a reduction of inflationary expectations. It is still not certain, however, how important each of these causes has been and why, aside from the strike, they became so powerful in November and December.

Greater fluctuations in short-term rates compared with long-term rates are consistent with the past cyclical behavior of interest rates. The traditional behavior of these rates was accentuated during 1970 by the character of the demand for funds during the year. Table 23 lists the funds raised in the credit markets during 1969 and 1970 by type of credit market instrument. During 1970, corporations made special efforts to improve their liquidity positions by turning much of the short-term debt accumulated in 1969 into long-term obligations. This is why the supply of new corporate bonds in the second and third quarters of 1970 was substantially above the flow during 1969, and why the equity market was tapped despite depressed stock prices. The pronounced slowdown in bank loans not elsewhere classified (which include commercial and industrial loans) during the second and third quarters of 1970 compared with the same period in 1969 confirms this pattern of financing. The large volume of corporate bond flotations last spring and summer explains why long-term bond rates did not decline more during that period, just as the weak demand for bank loans was a major factor causing a series of cuts in the prime rate charged by commercial banks, from 8.50 percent to 6.75 percent by the end of the year and to 6.00 percent early in 1971.

Many State and local governments were forced to postpone security issues during the last half of 1969 because of rising interest rates and statutory limitations on the interest rates that could be paid. A liberalization of these statutory ceilings, combined with lower interest rates later in the year, ac-

Chart 6

# Interest Rates



SOURCES: TREASURY DEPARTMENT, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, FEDERAL HOUSING ADMINISTRATION, MOODY'S INVESTORS SERVICE, AND STANDARD & POOR'S CORPORATION.

TABLE 23.—Funds raised in credit markets by nonfinancial sectors, 1969–70

[Billions of dollars, seasonally adjusted annual rates]

Financial sector	1969				1970		
	I	II	III	IV	I	II	III <sup>1</sup>
Total funds raised by nonfinancial sectors.....	88.9	88.8	93.4	82.2	80.0	101.3	103.0
U.S. Government <sup>2</sup> .....	-5.3	-13.3	3.7	.4	3.3	17.2	18.8
All other nonfinancial sectors.....	94.2	102.0	89.7	81.8	76.7	84.1	84.2
Corporate equity shares.....	.2	3.2	5.3	9.2	6.3	6.2	5.6
State and local government securities.....	10.2	9.8	6.7	7.1	9.2	11.0	11.7
Corporate and foreign bonds.....	15.8	13.3	12.8	11.1	14.7	22.3	19.7
Mortgages.....	28.6	28.6	26.8	25.4	22.5	23.6	27.2
Bank loans not elsewhere classified.....	16.4	19.5	11.5	9.7	7.8	4.5	4.5
Consumer credit.....	9.9	10.4	8.8	8.4	4.8	6.2	6.4
Open-market paper.....	5.1	3.9	3.2	1.2	5.0	2.2	.5
Other.....	7.9	13.3	14.6	9.6	6.4	8.1	8.8

<sup>1</sup> Preliminary.

<sup>2</sup> Includes public debt securities and budget agency issues.

Source: Board of Governors of the Federal Reserve System.

counts for the increase in security issues by State and local governments from the last half of 1969 to the second and third quarters of 1970.

#### FINANCIAL INTERMEDIATION AND THE MORTGAGE MARKET

Mortgage rates tend to be sticky and have declined relatively little in response to monetary ease. For example, the rate on FHA-insured mortgages declined from a high of 9.29 percent in March to 8.90 percent at the beginning of December. However, according to preliminary estimates, mortgage rates declined sharply during December. As can be seen in Table 24, savings flows to the mortgage institutions, such as savings and loan associations and mutual savings banks, which were severely depressed in the second half of 1969, rose substantially in the second and third quarters of 1970.

Much of the total net outflow of deposits in the second half of 1969 and the inflow during the second and third quarters of 1970 can be attrib-

TABLE 24.—Flows of savings deposits through savings institutions, 1969–70

[Billions of dollars, seasonally adjusted annual rates]

Institution	1969				1970		
	I	II	III	IV	I	II	III <sup>1</sup>
Total net increase.....	6.5	.6	-15.7	-3.6	17.9	42.3	87.9
Savings deposits at commercial banks.....	-6.8	-7.9	-21.5	-7.8	12.8	26.6	65.7
Large certificates of deposit.....	-16.7	-15.4	-12.3	-3.5	5.3	7.6	32.4
Other time deposits.....	9.9	7.5	-9.2	-4.3	7.5	19.1	33.2
Savings at savings and loan associations.....	8.0	4.6	3.0	.5	1.8	9.8	15.5
Savings at mutual savings banks.....	3.8	2.7	1.5	2.4	1.6	4.3	5.2
Savings at credit unions.....	1.6	1.2	1.3	1.4	1.6	1.5	1.5

<sup>1</sup> Preliminary.

Source: Board of Governors of the Federal Reserve System.

uted to the movement of large certificates of deposit (CD's) at commercial banks. For example, the suspension of deposit ceilings on large CD's in June 1970 stimulated a huge inflow of these deposits between the second and third quarters. In addition to generally easier monetary conditions (and lower rates on competing open market securities), the inflow of funds to savings and loan associations and mutual savings banks during the second and third quarters of 1970 was encouraged by the increase in January 1970 in the legal deposit rates that the Federal Home Loan Bank Board and the Federal Deposit Insurance Corporation permitted such institutions to pay. At the same time, similar action by the Federal Reserve Board in increasing the maximum rate that commercial banks may pay on most categories of time and savings deposits also contributed to large inflows of time deposits into commercial banks (Table 24).

To some extent savings and loan associations and savings banks used these inflows of deposits during the second and third quarters of 1970 to restore their liquidity positions rather than to make mortgage loans. Each of these institutions, for example, increased its holdings of Government securities significantly during the second and third quarters. For this reason the mortgage-supporting activities of the Federal Home Loan Banks and the Federal National Mortgage Association (FNMA) during 1970 were quite essential and entailed amounts that almost matched the substantial operations in the last half of 1969. For example, FNMA made net purchases of home mortgages at a seasonally adjusted annual rate of \$5.0 billion during the first three quarters of 1970, as compared to a rate of \$5.6 billion in the last half of 1969.

The enactment in July of the Emergency Home Finance Act of 1970 created the Federal Home Loan Mortgage Corporation to supplement the mortgage-market activity of FNMA. During the year, this new corporation purchased \$326 million of loans that had been made with the guarantee of the Federal Housing Administration and the Veterans Administration. In December, the Federal Home Loan Mortgage Corporation began to purchase participations in conventional mortgage loans, introducing a national market for these mortgages for the first time. The Federal National Mortgage Association is also preparing to create a secondary market for conventional mortgages.

In December 1970, the Federal Housing Administration and Veterans Administration lowered the maximum rates permitted on FHA- and VA-insured mortgages from 8.5 percent to 8.0 percent. (In January 1971 rates were further reduced to 7.5 percent.) Such action does not by itself reduce mortgage rates, but lowers the maximum rate that can be paid on mortgages that are insured by the FHA and VA. Lowering these ceiling rates when market conditions require a higher rate would reduce the availability of funds for such mortgages. However, since conditions in the money and capital markets seemed to warrant a lower mortgage rate, the only problem being the sluggish behavior of this rate, it was hoped that the lowering of

the FHA and VA ceilings would stimulate a downward movement in actual rates. Present indications are that market rates have begun to decline.

### THE STOCK MARKET

Stocks traded on the securities exchange suffered substantial declines in the first half of 1970. For example, the New York Stock Exchange index of all stocks (December 31, 1965=50) declined 19 percent from a level of 50.86 in December 1969 to 41.15 in July 1970. By the end of December 1970 the index had recouped nearly all of its loss and stood at 50.23. The sharp decline in stock prices in May 1970 and their depressed state through July were due in part to the increased tensions over developments in Southeast Asia and the Penn Central reorganization. Throughout the first half of 1970 investors were concerned with inflation, the stabilization policies needed to control it, and the extent of the business downturn that would result from control measures.

Although it is often assumed that stock prices move with prices of real goods, and hence mirror any inflation, this is not always the case, as events in 1970 again demonstrated. Profit expectations were uncertain, and the threat of a return to relatively tight monetary policy to ensure success on the inflation front created further uncertainty among investors. These factors combined to produce a large erosion in the value of equities. Progress on the inflation front, evidence before the auto strike that the upturn in business activity was getting underway, an end to the decline in corporate profits by midyear, and the maintenance of a moderately expansionary monetary policy all helped to stimulate the stock market recovery.

An important side effect of the excessive exuberance in the stock market that accompanied the inflation, and the subsequent steep decline in stock prices as anti-inflationary policies were instituted, has been unusual strains on the institutions of the market. At least 30 broker-dealer firms have ceased to operate since mid-1968. Although most of these companies were relatively small, a few larger firms had to merge with stronger ones.

The stock exchanges have voluntarily maintained a fund to reimburse customers of firms that have failed. The experience after 1968, however, indicated that a more formal arrangement for greater consumer protection was needed. The Securities Investor Protection Corporation, which was established by Congress in December 1970 with support from the Administration, insures investors against financial loss (within specified limits) caused by the bankruptcy of their brokerage firm.

### LIQUIDITY SQUEEZE

The concern over a possible "liquidity crisis" mounted in mid-1970 when the Penn Central Railroad filed for reorganization. The immediate stress on the financial markets in June was lessened by the Federal Reserve Board's suspension of interest rate ceilings on 30- to 89-day certificates of deposit issued by large commercial banks. The Federal Reserve Banks also made it

clear that the borrowing facilities at the discount window would be fully available to banks needing to accommodate their customers. Commercial banks were thus able to bid more freely for funds in the open market, to borrow from the Federal Reserve, and to channel the funds thus obtained into business loans. As summarized in Table 24, there were huge inflows of time deposits to commercial banks in the third quarter. Borrowings at the Federal Reserve did, in fact, increase to \$1.36 billion in July after having averaged \$940 million during the first half of 1970.

Corporate liquidity is a general term that refers to the ability of a firm to make payments as obligations fall due. A firm faces a liquidity crisis if its near-term obligations threaten to exceed its ability to raise the cash needed to cover payments. Bankruptcies can result, of course, simply from an uneconomic operation, when costs, for example, persistently exceed revenues. In a liquidity crisis funds to cover immediate obligations may be temporarily lacking even though a firm's prospects for long-term profits are satisfactory.

The question whether a genuine liquidity crisis existed in mid-1970, in the sense that firms otherwise sound were going bankrupt because of a liquidity squeeze, can be answered in the negative. It is quite true that certain statistical measures of business liquidity showed substantial declines from 1968 through mid-1970. But these declines can be explained in part by the longer trend toward more efficiency in managing corporate reserves of cash and marketable securities.

Much of the reduction in overall liquidity can be attributed to the reaction of the more liquid corporations to tighter monetary conditions and high interest rates, although some firms had overextended themselves financially. A comprehensive analysis of this point and of overall corporate liquidity in 1970 is presented in Appendix A. Confronted by high interest rates during 1969, business firms in general relied on short-term credit, with the intention of converting this short-term debt into long-term liabilities during 1970 at lower interest rates. Since many firms experienced low earnings in the first half of 1970, this need to refinance short-term debt made the demand for long-term funds in the capital market particularly heavy in 1970 (Table 23). A sharp increase in interest rates thus occurred and some borrowers were inevitably squeezed out of the capital markets. Nonetheless, there was no liquidity crisis if this term is taken to connote skyrocketing interest rates, a complete absence of bids for established securities, and numerous bankruptcies of sound corporations. The actions of the Federal Reserve and the resiliency of the money and capital markets led to significantly improved financial conditions during the second half of 1970.

## Measures of Changes in Fiscal Policy

When the effects of budget policy on the overall economy first came to general attention 35 years ago, the expansiveness of the budget was commonly measured by changes in the actual deficit or surplus. This measure can be grossly misleading, however. Even if existing tax and spending legislation remains unchanged, the actual budget balance will rise and fall, as changes in incomes influence tax receipts and call for different unemployment and welfare payments. In fact, the actual deficit can rise in the face of restrictive policy actions of Government. For example, a fall in tax revenues can coincide with an increase in tax rates if incomes decline sufficiently. A given change in the actual deficit (or surplus) between two years has a very different significance if economic activity is rising between those two years than if it is falling.

Clearly, a need has existed for a better measure of Government budget policy and its effects—one that would show what effects were the result of tax and expenditure decisions and what effects the economy itself had exerted on the budget. There are a number of possible solutions to the problem. Econometric models, for example, can be used to estimate the impact of various combinations of tax rate and expenditure changes on the level of economic activity. Different models utilize different assumptions regarding the nature and relative importance of various determinants of economic behavior, and therefore they provide different estimates of the economic impact of various fiscal policy changes. Consequently, fiscal policy analysts cannot place too much reliance on the results of a particular model, although the distribution of estimates provided by a variety of available models is a useful guide.

For the purposes of public discussion, it is convenient to use simple measures of the stance of fiscal policy which summarize the more complicated policy changes used in the complex models. As noted below, however, considerable care must be exercised in using simple measures of changes in fiscal policy to estimate the effects of these policies on economic activity.

One simple measure of changes in policy can be obtained by calculating the effect of changes in revenue and expenditure legislation at a particular level of economic activity. This technique abstracts from the effect of changes in economic activity on the budget and provides a clearer view of purely discretionary policy changes. For example, at the level of economic activity prevailing in 1970, changes in tax rates occurring during 1970 reduced revenues by roughly \$9 billion while expenditures increased by about \$15 billion. In other words, exogenous policy actions during 1970 provided a fiscal stimulus of \$24 billion.

While changes in the surplus or deficit at a given level of money GNP provide a convenient measure of discretionary policy changes, fiscal policy

planning requires a measure containing somewhat more information. Because the labor force and productivity normally rise and prices rarely fall, money GNP normally grows. Consequently revenues also rise and over time the budget surplus would tend to grow rapidly if spending and tax rates remained unchanged. Spending and tax programs that would yield an unchanged surplus in an economy with a constant GNP would thus tend to hold down growth at the normal rate by generating larger and larger surpluses.

It has been found of interest to ask how the surplus or deficit would change if the economy moved along a specific path. Conceptually, any number of growth paths could be selected for this purpose; it is the change in the budget position along the assumed path that will indicate whether the budget policy has been or will be restrictive relative to that path—that is, whether the budget is tending to push the economy above or below the assumed path.

In order to give the measure more relevance it is common to select a growth path that has some normative significance. The full employment growth path has been used most frequently since the concept of a full employment budget was developed and publicized by the Committee for Economic Development in 1947. Changes in the full employment surplus measure changes in spending and tax legislation as well as the effect of full employment growth on revenues. The difference between the full employment budget balance and the actual balance reveals the effects of short-run variations in economic activity around the full employment growth path.

A particular target growth path could serve as an alternative to the full employment path. Sometimes this path is identical to the full employment path, but in 1970 it was necessary to be below full employment temporarily in order to moderate the inflationary pressures which had become excessive in 1969 and early 1970. In other circumstances the desired path may be steeper than the full employment growth path, if it is necessary to regain full employment from a less than full employment position. The target path budget would reveal the effect of discretionary tax and spending changes and the effect of target growth on tax revenues, but would abstract from the effect on the budget of deviations of economic activity away from the target.

### *Method of Computation*

The figures for the full employment budget provided in Tables 1 and 25 are computed in the following manner: First, the full employment growth path is estimated in terms of the real value of production. Second, the real growth path is converted into current dollar terms using the actual rate of price inflation. This step suffers from the difficulty that a revenue change resulting from price changes would alter the estimate of the full employment surplus even though there were no changes in discretionary tax and expenditure policies. One way out of this difficulty might be to convert real output to money income using the inflation rate that would have occurred if the economy had actually been at full employment. But this figure is so difficult to estimate, if indeed there is any unique rate, that the

actual inflation rate despite its shortcomings is used as a convenient approximation.

Next, full employment income must be distributed into various tax bases, such as corporate profits, personal income, and other categories. The calculations used in this chapter are based on an estimate of the distribution which would emerge if the economy were actually operating continuously at full employment. For the purposes of comparing full employment budgets at different points of time it is important that a constant distribution pattern be used. Otherwise the estimates would shift with distributional changes that are unrelated to fiscal policies.

Average tax rates are then estimated for different types of income under current legislation. On the basis of these estimates full employment revenues can then be calculated. Full employment expenditures are estimated by adjusting actual expenditures to allow for the difference between actual outlays on unemployment compensation and those that would occur at full employment.

It is clear that the full employment estimate depends on numerous assumptions and that these create the possibility of error. This problem should not, however, be exaggerated. For most purposes interest focuses on changes between years, and if the assumptions are consistent between years the errors in the estimated changes in the budget position are likely to be small. Moreover, estimates of the full employment budget for the future are probably subject to less error than estimates of the actual budget, because the actual future path of the economy is more variable and uncertain than the full employment path.

### *The Full Employment Budget as a Measure of Fiscal Impact*

The absolute level of the full employment surplus or deficit is of limited significance for indicating how much restraint or stimulus the budget would exert on the economy if it followed the full employment path, or indeed for indicating which of these directions its influence would take. Changes in the full employment surplus from period to period are much more important indicators of how much fiscal policy is moving toward contraction or expansion. The fact that the full employment budget has a surplus does not imply that the budget is not having an expansionary impact on the economy; the effects may be expansionary if the surplus is declining. Similarly a budget with a deficit may be restrictive if the deficit is declining.

Although changes in the full employment budget balance provide a convenient summary measure of changes in fiscal policy, they do not tell the whole story. A given change in the balance may exert a different force, depending on whether the change stems from a change in transfer payments, purchases of goods and services, corporate taxes, personal taxes, or other instruments of fiscal policy. Results vary because different policy changes affect economic behavior differently, even though the same amounts of money are involved. Some of the most important differences can be con-

sidered in complex models of the economy, but no model can capture all of the subtle effects of fiscal policy. For example, virtually identical policy changes may have different results depending on circumstances. A long-anticipated increase in Social Security benefits may have a different consequence from that of an unexpected increase. Similarly, a permanent cut in income taxes probably has a more powerful impact than an equivalent reduction that is known to be temporary. Conceptually models could be constructed to take account of such differences, but they would be extremely difficult to manage.

### *Recent Changes in the Full Employment Budget*

The table below illustrates changes in the full employment budget during the last decade. If fiscal policy changes are measured by the annual change in the surplus relative to full employment GNP, the largest stimulus of the decade came with the tax cut of 1964. The largest shift toward restraint came in 1969, or, on a 2-year basis, in 1968 and 1969.

The full employment budget can be computed by using either national income accounting concepts or the concepts applied in deriving the unified budget, which appears in the President's annual budget statement. Economists generally favor the national income accounting approach in the belief that on balance it provides a more accurate measure of fiscal effects; but both concepts have advantages and disadvantages.

On both the expenditure and revenue sides these concepts embody important differences of timing. In the national accounts budget, purchases of goods and services are recorded when delivery is made. The unified budget records them when checks are issued for payment; this might occur before or after delivery. It is sometimes argued that neither method of timing truly captures the fiscal impact and that for such a purpose the timing of orders should be used.

TABLE 25.—*The full employment receipts and expenditure estimates, national income accounts basis, 1960-70*

Calendar year	Billions of dollars				Change as a percent of full employment GNP
	Receipts	Expenditures	Surplus or deficit (-)	Change in surplus from preceding year	
1960.....	105.0	92.0	13.0	8.3	1.5
1961.....	109.2	100.4	8.8	-4.2	-7
1962.....	113.8	109.4	4.4	-4.4	-7
1963.....	121.8	112.8	9.0	4.6	.7
1964.....	119.2	117.5	1.8	-7.2	-1.1
1965.....	124.2	123.2	1.0	-.8	-.1
1966.....	139.3	142.9	-3.6	-4.6	-6
1967.....	153.1	163.6	-10.5	-6.9	-9
1968.....	175.7	181.7	-6.0	4.5	.5
1969.....	203.3	191.7	11.7	17.7	1.9
1970.....	212.0	205.3	6.7	-5.0	-.5

Note.—Detail will not necessarily add to totals because of rounding.

Source: Council of Economic Advisers.

On the revenue side the unified budget again uses cash receipts. In the national income accounts budget most receipts, such as corporate income and excise taxes, are recorded on an accrual basis, but personal income taxes are recorded when paid by individuals. Steps are now being taken to put the unified budget more on an accrual basis.

The national accounts budget omits the direct lending activities of Government except for Commodity Credit Corporation (CCC) "nonrecourse" commodity loans, which are treated as expenditures rather than loans. The unified budget also treats as expenditures CCC loans as well as foreign loans made on noncommercial terms and domestic loans where repayment may be waived. A unified budget deficit can be computed for the expenditure account alone, or it can be defined to include the net lending not already considered in the expenditure account. In fiscal 1970 such lending amounted to \$2.1 billion.

Neither budget considers the loan guarantee and insurance programs of Government, and besides these there are a number of Government-sponsored lending institutions which operate outside of the budget. During fiscal 1971 it is expected that Government net guaranteed and insured loans will increase by about \$13 billion, while the increase in the net lending of Government-sponsored institutions will be about \$8 billion.

## CHAPTER 2

# Outlook and Policy

**T**HE GOALS FOR THE PERFORMANCE OF THE ECONOMY IN 1971 ARE CLEAR. Our objectives should be to move along a path through 1971 that will bring the unemployment rate in 1972 down to the zone of reasonably full employment, and at the same time to get the rate of inflation down to the 3-percent range. The general nature of the policies that would help to achieve each of these goals is also clear. We can reduce unemployment, at least in the short run, by expansive economic policies which would make the demand for output rise rapidly and so raise employment. We can reduce the rate of inflation by restrictive economic policies which would repress the demand for output, increase unemployment and unutilized capacity, and thereby encourage business and labor to settle for smaller advances in prices and wages. While these "solutions" are clear, the problem is also clear. We cannot do as much as would be possible in one direction without injurious results in the other. This is not to say that it is impossible to make progress in both directions at the same time. It is possible, but only if we do not move too fast in either direction.

### THE UNEMPLOYMENT-INFLATION DILEMMA

The dilemma of having to balance our efforts between reducing unemployment faster and reducing inflation faster is not new. This itself is worth recognizing, because if the problem were truly new, the thinking and experience of the past would be of little value. In fact the dilemma has been one of the central concerns of economics and of economic policy throughout this generation. The problem came to the fore as early as 1936 and 1937 when the economy, although still at a very low level, was recovering from the Depression and prices began to rise. President Roosevelt called public attention to what he believed to be the dangers of the price increases. There were many who thought that the ending of the recovery in the sharp recession of 1937-38 was due to the earlier price rise, which they attributed to concentrations of economic power. This belief was one of the motives for the establishment of the Temporary National Economic Committee (TNEC) to investigate the concentration of economic power.

The work of the TNEC led to no conclusions on this point, because its report did not come until the war had superseded earlier concerns. Never-

theless, the problem of reconciling full employment and price stability was prominent in wartime thinking about the postwar economy. This was one of the reasons why some were reluctant to accept what they interpreted as the overly ambitious commitment to full employment implicit in the original "Full Employment Bill," an attitude that led to a less ambitious commitment in the Employment Act as enacted in 1946.

Discussion of the possibility of full employment without inflation continued in the first 10 years after the war. This was a period in which contemporary experience was dominated by the effects of wars, controls, and their aftermath, and it was not generally considered that it could provide much light on the characteristics of a normal peacetime economy. The events of 1955–57 intensified the concern with the problem. We then had the first full employment achieved in normal conditions since 1929, and it was accompanied by a disturbing increase in the inflation rate. From the third quarter of 1954 to the third quarter of 1957, prices (as measured by the GNP deflator) rose at an annual rate of 3.1 percent, reaching a peak annual rate of 5.4 percent in one quarter. Six quarters after the recession began the inflation rate was still 2 percent, and this contributed to the idea of inflation as a permanent problem. This experience lay behind the statements contained in the *Economic Report of the President* during that period about the need for responsible restraint in raising prices and wages.

In the upswing that followed, however, most measures of the general price level stabilized, and this stability continued through 1965. From mid-1958 to the end of 1965 the rate of inflation averaged 1.5 percent per year, as measured by the GNP price deflator, and 1.3 percent by the consumer price index. At the time this moderate rate of inflation was considered as being, for all practical purposes, "reasonable price stability." The experience, however, did not resolve questions about the compatibility of full employment and price stability. Unemployment was high during all of this period, although declining from 7.1 percent in early 1961 to 5.0 percent by the end of 1964 and to 4.5 percent in mid-1965. Some thought that the prolonged period of little inflation would create an environment stable enough so that a gradual reduction of the unemployment rate to 4 percent could be achieved without speeding up the inflation. Evidence that the inflation rate was holding steady at a low level as unemployment fell towards 4.5 percent encouraged this hope. But in fact the GNP price deflator began to rise soon after unemployment fell below 4 percent at the end of 1965, and there had been evidence of the beginnings of a rise in wholesale prices before that. This rise in the inflation rate and its sequel left several important questions unanswered. Would the inflation rate have increased if the drop in the unemployment rate from 5 percent to 4 percent had occurred more gradually? Would the inflation rate have stabilized at the still moderate figures registered late in 1965 if demand had remained just sufficient to keep unemployment at 4 percent? Or was some higher rate of inflation the inevitable accompaniment of the 4-percent unemployment rate?

Demand kept rising rapidly, although not without some interruptions, after the end of 1965, reducing the unemployment rate below 4 percent and pushing the inflation rate still higher. While this was happening, that is, until about the middle of 1969, the dilemma of policy disappeared. Unemployment had been driven down to a level where symptoms of labor shortages and tight labor markets were widespread. In those circumstances the proper course of policy was clear. Restrictive policy which would restrain inflation would carry with it little, if any, cost in the form of undesirable effects on employment. For the time the appropriate direction of policy was unambiguous.

The dilemma reasserted itself in early 1970 when we again experienced high and, for a time, rising inflation rates along with rising unemployment rates. This was a natural transitional combination, in view of the rapid inflation we had been experiencing. Once the rise of total demand was restrained, the effects were first felt on the real side of the economy—on output, employment, and unemployment—with prices continuing to rise as a result of forces set in motion earlier.

### THE GOALS OF POLICY

There are several reasons for believing that from this point forward a further reduction of the inflation rate will be consistent with reduction of the unemployment rate:

1. A reduction of the inflation rate has already begun. This is reflected in most broad measures of the price level.

2. There is a lag between the emergence of slack in the economy and its effect on the inflation rate so that the full effects on prices of the sluggish economy in 1970 have yet to be felt.

3. If, as expected, employment rises at a moderate rate during 1971, sufficient slack will still remain in the economy to exert downward pressure on the rate of inflation.

4. With output rising fast enough to cut into the unemployment rate, a high rate of productivity growth should continue through 1971. Stern cost-cutting measures in 1970 have put businesses in a position to achieve more favorable trends in costs per unit of output as operating rates improve. This will help to limit the pressures of these costs on prices.

To go beyond these general statements of direction and try to estimate how much unemployment and inflation could be reduced, we must move cautiously. However, some approximate judgments seem consistent with recent as well as earlier experience. Confining the economic expansion to a pace which would keep unemployment about where it now is, in the neighborhood of 5.5 to 6.0 percent, would permit a significant decline in the rate of inflation during 1971 and 1972. To allow so high an unemployment rate to persist for so long a time, however, would be inconsistent with the Employment Act—and undesirable even if there were no Act. On the other hand, trying to restore what has been commonly regarded as “full

employment”—a 4-percent unemployment rate—within the present planning period that extends to the end of fiscal year 1972 would entail risks on the inflation side. Although this latter path might be consistent with some further reduction of the inflation rate, there is a serious risk that the inflation rate would start rising again if the 4-percent unemployment rate were approached as rapidly as such timing would imply.

There is a feasible path between these extremes that would better meet the Nation's present requirements by allowing significant progress to be made against both inflation and unemployment. This is a path that would see the unemployment rate reduced to the 4½-percent zone by the second quarter of 1972 and the inflation rate, as measured by the GNP deflator, declining to approach the 3-percent range at the same time. Total output would have to rise significantly faster than the growth of potential output, or employment would rise only in proportion to the growth of the labor force and would not cut into unemployment. The necessary rate of increase of total output, however, would not have to exceed the rates that have been achieved during past periods of economic recovery.

The general goal, which is more important than the precise numbers, is that the rate of unemployment should decline as fast as is consistent with a reasonably steady and durable decline in the rate of inflation. We believe that the numbers we have proposed—an unemployment rate in the 4½-percent zone and an inflation rate declining to approach the 3-percent range by mid-1972—are feasible representations of that goal. But the numbers are themselves not the fundamental goal.

It has to be recognized that achievement of this goal would still leave the economy short of the ideal with respect to both unemployment and inflation. As things turn out, the economy may yield better results on both sides than are projected here. But it would be unrealistic to count on such an outcome, and irresponsible to hold out to the American people the idea that there are readily available policies which would achieve it. The long and accelerating inflationary boom that was set off beginning in late 1965 left the country with this unemployment-inflation dilemma, whose severity was only subsequently appreciated. But to move firmly along the path laid out would relieve the anxiety about the economy from which the country has been suffering for many years and generate confidence in further progress.

## IMPROVING THE UNEMPLOYMENT-INFLATION CHOICE

How rapidly we can move in expansion of the demand for output, with associated increases in production and employment, will depend heavily on the capability of the economy to resist the inflation of prices and costs. In many directions we see accumulating evidence of public weariness with a continuing deterioration in the purchasing power of its money. Surveys of public sentiment reveal it sharply. Widespread public support for direct price and wage controls clearly reveals public frustration with inflation

even if the full consequences that these controls would have in distortions and black markets are not perceived. Developments which persistently force costs and prices upward will simply prolong unemployment and the sluggish spending inclination of consumers. And growing confidence in prospects for a reasonably stable price level would make a major contribution to invigorated consumer spending and improved economic conditions generally.

Broad fiscal and monetary policies must continue to play the basic role. How expansive these policies can be, however, will depend on what more can be done to enable the economy to translate rising demand into rising output, employment, and real incomes rather than into a more rapidly rising cost-price level. This list of other possible actions, beyond the prudent management of fiscal and monetary policies, is long and varied. The problem is to select those which would be, on balance, helpful. It is not solved by saying that reliance on fiscal and monetary restraint alone will make the process of disinflation slower and more painful than we would like. That is a restatement of the problem, not a solution to it.

As a basis for thinking about the problem, several points must be borne in mind:

1. The free market system of determining prices and wages, even with its imperfections, serves exceedingly well in shaping what gets produced and by whom, and how the resulting income gets distributed. These are key questions in any economy, and no effective substitute for this market economy has been found that answers them better. We take the free market system for granted, like the air we breathe, and become conscious of the benefits of either only after they have been lost.

2. There is now a great deal of experience to indicate that the superficially attractive route of voluntary controls is unlikely to lead to a solution. By "voluntary controls" is meant a system in which the Government, or a quasi-independent board selected by the Government, specifies comprehensive standards of wage-price policy to be observed voluntarily by labor and business, without any similarly comprehensive means of enforcement by Government. The basic deficiency in this approach is that it counts on a large number of people to acquiesce in conduct that they find contrary not only to their own interests but also to their view of fairness, propriety, and efficiency. The great initial attraction of the idea, that it makes the public think something effective is being done, is also one of its adverse consequences because it distracts attention from the real nature of the problem.

3. At the same time, it is evident that some price and wage increases that are going on are not adaptations to current basic market conditions and are not consistent with efficient operation of the economy. To some extent this simply reflects a lag in adjustment to the change in market conditions that has taken place in the past year. But in some cases the behavior

of prices or wages can be explained only by a combination of this factor with an unusual degree of insulation from competitive market forces.

4. In some cases the insulation from market forces is due to acts of commission or omission by the Federal Government. This may be true, for instance, in industries that are protected from foreign competition by import quotas or voluntary arrangements with similar effect. In these cases the Government has the instruments at hand for correcting the problem. This does not, in itself, make the correction easy. Those who have been the beneficiaries of a shelter from competitive forces would certainly feel aggrieved by changes in conditions on which they have come to rely.

Government policy must find its way among all these considerations. Short of an emergency of a kind which does not exist, mandatory comprehensive price and wage controls are undesirable, unnecessary, and probably unworkable. The Government should not rely upon pseudo-solutions for real problems and should not delude the public about doing so. But there are cases where price or wage increases not justified by competitive market forces are contributing to the prolongation of the inflation and to unemployment as well. In some of these cases the Government has means of correction available that do not interfere with market performance but tend rather to improve it.

What is called for is a policy of doing what can effectively be done, wherever it can be done, and not pretending to do more. The Administration set out on this course with the President's speech of June 17, 1970, and has since then been following it with increasing force.

In June the President directed the Council of Economic Advisers to issue a periodic *Inflation Alert* to call attention to specific cases or general features of exceptionally inflationary wage or price behavior. The purpose of these reports was to bring to bear on important wage and price decisions a more informed and sharply focused public attention. The Council will continue to issue the *Inflation Alert* approximately every 3 months. Certain points made in the December 1970 issue, prompted by developments in the immediately preceding period, are worth reiterating.

1. Apart from temporary aberrations the general price level tends to rise by the excess of wage increases over productivity increases. Productivity cannot be counted on for long to rise more than about 3 percent per year, although this rate will probably be exceeded during the next year. This means that a continuing 7-percent annual rate of increase of employee compensation per hour would commit the economy to a continuing inflation rate of about 4 percent.

2. We shall not make progress in reducing the inflation rates if the gains we hope to make on the labor cost front are offset by too rapid increases of profit margins.

3. If the inflation is to be slowed down, all wages that have not kept up with the inflation of prices cannot catch up in any short period. On the average, labor compensation has kept pace with the inflation and productivity

increases, but some wages have led and some have lagged. If those that have lagged were to catch up quickly, while the leaders did not fall back—as they surely would not in a short period—then the cost-price spiral is given another turn, prices rise further, and new laggards are created who feel they have to catch up.

4. To embody in wage agreements covering two or three future years provisions for wage increases based on the assumption that prices will continue to rise at recent peak rates is not a reasonable response to our present situation. If this were done generally it would be a recipe not only for permanent rapid inflation but also for persistent unemployment, because the Government would be bound to try to check the inflation by generally restrictive policies. On the other hand, in some cases escalator clauses, which relate future wage changes to actual variations in the cost of living rather than to the expectation of continued inflation at its peak rate, may have a role to play during the adjustment to a more stable price level.

The President's June 1970 speech also announced the establishment of the Regulations and Purchasing Review Board to correct Government policies which unnecessarily contribute to inflation. It has under consideration a number of problem areas on which recommendations will be forthcoming. Examples of these are the management of import restrictions, regulations which unduly increase the cost of bidding on small Government projects, design and procurement methods for Government buildings, and the administration of the Davis-Bacon Act, which requires that contractors on Federal construction projects pay "prevailing" wages (a provision which in practice may have exerted an inflationary effect on construction wage rates and costs).

It is the general policy of this Administration that where it has a legitimate role the Government should act to correct market conditions that prolong inflation, or whose correction can have a favorable effect on the price level. In line with this policy the Administration last fall took two steps to restrain increases of crude oil prices. It relaxed limitations on the importation of oil from Canada and permitted production of oil on Federal offshore leases without restriction by State regulatory commissions.

Following the announcement of a large increase in prices of some steel products in January 1971 the President directed the Cabinet Committee on Economic Policy to investigate economic conditions in the steel industry which were giving rise to such increases. To be taken into account in this review is the voluntary agreement by producers of steel in Japan and the European Economic Community to limit their sales of steel in the United States, an agreement negotiated by the U.S. Government. One subject to be investigated is how the interests of U.S. users of steel, including many industries which themselves face foreign competition, can best be correlated with the interests of U.S. producers in these international steel arrangements.

Rapidly rising construction costs have been a serious concern for the past 2 years. In 1969 the Administration took steps to reverse price increases

in lumber; the impact on construction is one reason for concern about steel price increases. The Administration has also moved to check the extraordinary wage and price increases in the construction industry. The wage increases have been occurring despite high unemployment in the industry. On January 18, 1971, the President met with leaders representing construction workers and employers and asked them to submit a plan for stopping the exceptionally large wage and price increases that are raising the cost of new homes and other buildings and causing unemployment in the industry itself. An effective resolution of these problems by parties in the industry would avert the need for changes in the legal provisions affecting the construction labor market. The public interest cannot condone continuing massive increases in these costs at a time when American families need more homes and many in the industry are unemployed and need jobs. The rising demand for houses, highways, and buildings must produce more construction and not be dissipated in higher costs and prices.

To regularize the increasingly active Federal role in particular labor or product markets, the Council's function of alerting against inflation has been broadened. By a decision taken in January the Council of Economic Advisers will report immediately to the Cabinet Committee on Economic Policy on any exceptionally inflationary wage or price developments so that the Cabinet Committee can consider appropriate Federal action.

The measures the Administration is taking will contribute to the capability of the economy to resist inflation as it moves along a rising path in 1971-72. They will not relieve the country of the consequences of past errors which have caused us to live for a longer time with both more unemployment and more inflation than anyone would like. They will still leave us dependent upon a course of steady but not excessive economic expansion as the way out of this dilemma. But they give the Nation additional assurances that 1971 can be a year not only of diminishing rates of inflation but also of rising employment and output.

## THE PATH OF THE ECONOMY IN 1971

Some of the factors that will determine the course of the economy in 1971 are present and visible, others may be present but not now clearly seen, and still others are, from the standpoint of the Federal Government, matters of policy still to be decided or at least subject to revision.

The most obvious of the present conditions is that the year 1970 ended with unemployment in the neighborhood of 6 percent and output in the fourth quarter about 6½ percent below its potential. As explained in Chapter I, the fourth quarter was significantly depressed by the automobile strike. This carries with it the probability of a large rise in output in early 1971 to rebuild inventories and meet customers' demands for motor vehicles. Also, apprehension that there may be a steel strike after midyear is likely to cause some larger than usual additions to steel inventories in advance. These two factors will provide a special boost to total output in the first

half of the year but they also involve the danger of a subsequent letdown. The assurance of a reasonably smooth and even expansion throughout the year must be a special concern of economic policy in 1971.

Aside from these transitory influences, there are several conditions that promise a strong rise of output during the year. The sharp rise in housing starts which occurred in the second half of 1970, the large inflows of savings into thrift institutions in the same period, and the beginning of a decline in mortgage interest rates all point to a much increased rate of residential construction in 1971 as compared with 1970. How fully these promising developments translate into more housing and more jobs will depend heavily on progress in stabilizing labor and other costs in the industry.

The increased availability of funds and lower interest rates, especially during the second half of 1970, permitted State and local governments to increase their borrowing substantially, and this will support an acceleration of State and local expenditure.

On the other hand, the most recent survey of anticipated plant and equipment expenditure of business, made by the Department of Commerce and the Securities and Exchange Commission in late November and December, suggests a year-to-year rise of 1½ percent. This does not allow for 1971 business purchases of automobiles and trucks not bought in 1970 because of the strike. It also does not allow for the effects of the liberalization of depreciation allowances for tax purposes that was announced in early January 1971 and went into effect retroactively to January 1. This liberalization will initially add about \$2.6 billion in calendar 1971 to the after-tax cash flow of business. It will stimulate investment by increasing the after-tax rate of return on machinery and equipment.

The catch-up after the auto strike and the stocking up in anticipation of a steel strike are likely to lead to a high temporary rate of inventory accumulation in the first half of 1971. Apart from this, however, there is nothing in the relationship between inventories and sales as the year opens to suggest that a change in the rate of inventory accumulation will be an active element in the economy for the year as a whole.

The Federal Budget proposed by the President implies an increase of \$17.0 billion in expenditures on the national income accounts basis between calendar 1970 and calendar 1971. Federal purchases of goods and services would decline \$1.9 billion, the reduction in defense spending more than offsetting a rise in nondefense purchases.

The first instalment of revenue sharing together with other programs would result in \$6.6 billion of increased grants to the States, and these will support increased State and local expenditures. Also, there would be an increase of \$12.0 billion in transfer payments to individuals, resulting in part from a proposed 6-percent increase in Social Security benefits effective January 1, 1971. On the other side of the Budget there will be the reduction of revenues resulting from the depreciation revision.

There is, of course, no counterpart of the Federal Budget to represent the probable course of monetary policy during 1971. In practice one of the important features of monetary policy as an instrument of economic stabilization is its capability for being adapted quickly and flexibly to emerging developments. As a basis for considering what the outcome for the year would be with a specified combination of policies, it is convenient to assume that the money stock will continue to grow at about the rate that has prevailed since the turn early last year.

There is little doubt that this combination of conditions and policies will bring forth a substantial rise of total output during the year. But the *rate* of expansion is critical for attainment of the Nation's economic goals, and this rate is uncertain. The outcome will depend upon the level of personal savings, the response of business investment to an actual upturn of sales and profits, the effects of rising construction costs on the housing market, the influence of the depreciation reform on business planning, the degree to which individuals and businesses want to rebuild their liquidity, and many other factors. The combination of such variables will determine whether, under present policies, there is a vigorous cumulative cyclical recovery such as has occurred after some economic declines or only a gradual rise.

There is a considerable body of opinion that expects the gross national product for 1971 to be in the range between \$1,045 billion and \$1,050 billion, which would be an increase of 7 to 7½ percent above that for 1970. This is a possible outcome. However, it seems more likely that with present policies the outcome would be higher than that and could be as high as \$1,065 billion.

A \$1,065 billion GNP for 1971 would be consistent with satisfactory progress towards the feasible targets suggested above—that is, towards an unemployment rate in the 4½-percent zone and an inflation rate approaching the 3-percent range by mid-1972. This calculation involves estimates of the rates of increase of productivity and the labor force, which may in fact turn out differently, so that the connection between the unemployment-inflation targets and the 1971 GNP is not a rigid one. Nevertheless, although emerging information may later suggest a different view, the figure of \$1,065 billion for the GNP in 1971 is an appropriate intermediate target of a policy whose ultimate goal is not a dollar total but a desired behavior of prices, unemployment, and real output. It is reasonable to expect that with an increase of the GNP to \$1,065 billion in 1971, the rate of price increase would be declining through the year, the unemployment rate would also end the year significantly lower than at the end of 1970, and real output would show a strong gain.

For the GNP to reach \$1,065 billion in 1971 would require an increase comparable to the increases after the low points of the economy in 1954, 1958, and 1961. If the rise in the money stock were to continue at the 1970 rate, the ratio of money to the GNP would then decline at about the average rate of the period 1952–70. Although this is a possible development, it is not a certainty. In the earlier recoveries cited, a major stimulus to the sharp rise

of demand and output was a change from running down inventories to building them up. This is less likely in 1971 than after the earlier adjustments, which were much more severe.

A GNP in the neighborhood of \$1,065 billion in 1971 is a good present estimate of the figure consistent with the targets for unemployment and inflation. It is feasible, and its realization with the proposed budget and complementary monetary policy is a reasonable expectation.

It will be necessary to maintain an appropriate balance between our international responsibilities and domestic objectives of economic policy in decisions about how to combine or "mix" the different instruments of policy. And the economy remains a highly complex system which, even with its patterns of regularity, does not respond to policy changes in simplistic and invariant ways. For these reasons we must be prepared, as new evidence appears, to make promptly the necessary policy adjustments.

The President's Budget for 1972 is based on the principle that expenditures should not exceed the revenues that the tax system would yield under conditions of full employment. This is an important principle. It permits the Federal budget to support the economy when the economy is weak, by allowing the Federal budget to move into a deficit under those conditions. But it retains the fiscal discipline of budget balancing by drawing a line beyond which expenditures may not go without tax increases. Moreover, keeping the full employment budget balanced, even when the economy is below full employment, prevents the Government from incurring commitments to higher expenditures and lower taxes that would unduly encumber the future. The Budget for fiscal 1972 provides for the most urgent needs that should be met through Federal expenditures. Moreover, the yield of the present tax system will be required later to meet foreseeable expenditures to which the Government is already largely committed. Therefore, still further increases of expenditures beyond this Budget or cuts in taxes would not have been consistent with fiscal discipline.

In the past year monetary policy has moved towards a greater degree of stability in the rate of increase of the monetary aggregates, notably the stock of currency plus demand deposits. This is, as was stated in last year's *Economic Report of the President*, a desirable direction. The financial and economic system is thus given a more stable monetary framework within which to operate.

The reasons for a new stability in fiscal and monetary policy are weighty. But the need to press forward to reduce unemployment and inflation is also great. After the economic instability we have experienced in the past 5 years the parameters of the system cannot be located with precision and may well be in flux. It would be unwise to try to freeze a course of policy which is expected to carry us through the difficult months ahead without change. A course of flexibility and determination, with cooperation and division of labor among the several instruments of economic policy, will be needed, and if followed will lead to the goals we all seek.

## CHAPTER 3

# National Priorities and the National Output

### INTRODUCTION

**T**HE COUNTRY'S ATTENTION THIS YEAR is focused on the problem of raising total production and employment to the point where we are fully using the Nation's capacity to produce. But we cannot afford to neglect measures that will promote continued rapid growth of that capacity and bring about its utilization for the most important purposes. Our success in achieving these goals will significantly affect the quality of American life for years to come.

In recent years the desirability of increasing production has been more strongly challenged than previously, and at the extreme there are some who look upon economic growth as the mere enlargement of a quantity without human meaning or value. But economic growth means increasing capacity to produce what is wanted—as is indicated by the term “goods and services,” meaning a good for or service to someone. The product is not measured in tons or miles or calories. It is measured by the value that someone puts on it. The key question is whose value counts.

In the measures of total output commonly used in the United States, the value of products is what purchasers pay for them. That is determined not only by the purchasers' preferences but also by conditions of supply. The conditions of supply in turn reflect the natural and technological circumstances at a given time as well as the preferences of suppliers of labor and capital. Thus the value by which a product is measured synthesizes the preferences of consumers and suppliers of resources as expressed in markets and in the political process. For example, a pound of butter counts for more economic output than a pound of coal because it combines a higher consumer valuation and a higher cost to produce. The most comprehensive measure of economic output, gross national product, is in fact defined as the market value of the Nation's output of goods and services. The same decentralized process that determines the values used in measuring the output also determines what gets produced.

For anyone whose values differ greatly from those of the general synthesis, the measurement of economic growth will be different from that commonly made. For anyone to whom clean water is the only valuable product there has been no economic growth since the time of Hiawatha. The argument is

ultimately a matter of taste, and the only comment one can make on it is that most people do not feel that way. The capacity of the economic system to produce what is valued by today's population—as represented in the market and in the political process—has increased rapidly and continues to do so. One can say no more about economic growth than that those whose decisions are reflected in the composition of output are better able to satisfy their desires in a growing economy. But if the markets are competitive and the decisionmaking process is democratic, that is saying a good deal.

The case for production is not necessarily the case for a particular statistic of production such as the gross national product, and the case for economic growth is not necessarily a case for increasing the gross national product. The GNP is not a perfect measure of all the activities comprehended in the idea of economic output. This has long been recognized, and it has most recently taken on new meanings and a new sense of urgency through growing concern for the environment. Many deteriorations or improvements of the environment are not accounted for in the gross national product, even when they are incidents of the production process. This is only a newly conspicuous example of those limitations of the GNP statistic which have been well known for a long time.

On the other hand, the gross national product measured in real terms does not count as "product" many benefits which are provided as a part of the production process, such as training, education, health care, and even cars and subsidized meals for employees. Only the cost of developing a public park goes into GNP, though the new park may add economic value to other properties in the neighborhood. Nor does the GNP include the value of the large amount of productive but unpaid work done in and out of the home, such as the housewife's services. It can take no account of changes in the burdensomeness of work, or the length of the workweek, or the wider choice of products available; and it only inadequately accounts for the consequences of the introduction of new products.

Despite these limitations the GNP statistic has made a great contribution to understanding how the economy is working. And, although GNP is not a complete measure of economic production, still less of "welfare," its level and rate of increase are positively associated with what most people and most societies consider an improvement in the quality of life. All over the world, in countries whose cultures and values differ widely, we see a drive for increasing the measured gross national product. Moreover, insofar as we are able to measure conditions of life not incorporated in the GNP, such as mortality and morbidity rates, educational attainment, and cultural facilities, these tend to improve in countries with higher per capita GNP. Evidence of a relation between GNP and the popular preference is seen in migration within the United States. There is a large net movement to those parts of the country, especially the metropolitan areas, where all the attributes, desirable and undesirable, of a high-income industrial society are most intensely present.

While the Nation has been engaged in a new and earnest soul searching about the role of growing material affluence in the good life, it is probably true that in general the American people prefer a rapid growth of GNP and its consequences. There is, in fact, a good deal of evidence that in the years ahead the demands on our capability to produce will be growing in intensity rather than diminishing. One of the great merits of the American system, however, is that those who do not share this common preference have the opportunity to make alternative choices. An important virtue of the market system for organizing economic activity is, therefore, precisely that we can more closely tailor our productive activities to the wide-ranging diversity of individual wants and preferences.

This is not to say that growth of measured GNP is an absolute to be furthered at all costs. As individuals and as citizens we clearly do many things that reduce the growth of GNP, and we fail to do many things that would accelerate it. This is perfectly reasonable; growth of GNP has its costs, and beyond some point they are not worth paying. Man wants more than is counted in GNP. People's values change. Conditions of life change. These may lower the point beyond which more growth of GNP is not worth its costs. Even so, growth of GNP would still be an objective about which we are not indifferent.

In any case, whatever may be true or become true about the relative values of the product included in the GNP and the product excluded from it—the automobile on the one hand and the clean air on the other—there is little evidence that we are witnessing a decline in the value assigned to economic output as a whole. This means that great importance must be assigned to the basic factors which influence our total capacity to produce. These are in the long run essentially the same for producing GNP as for producing other benefits. They are the size and competence of the population, the state of knowledge, the stock of capital, and the effectiveness with which these are combined. We can foresee no diminution in the need for these factors if we as a people are to come closer to meeting our objectives. In fact, as we shall show below, the existing propensities of the population and the policies of the Government constitute claims upon the GNP itself that can only be satisfied by rapid economic growth.

In the long view of history, the average rate of economic growth in the United States has been exceptionally high. In the latter part of the 19th century per capita real incomes in the United States and industrial Europe were roughly equal. But by the middle of this century U.S. real per capita income and output were roughly double those in advanced European economies. We expect that the rate of growth of real per capita income in the 1970's will be even higher in this country than our historical average. This will happen solely because we will have unusually rapid growth of the labor force relative to the growth of the population. Without special policies to encourage productivity gains, a faster rate of growth of output per worker or per worker-hour than the country has experienced since the end of World

War II does not seem to be a reasonable expectation. There is some evidence that the higher rate of growth of the labor force might also affect productivity favorably, but there are also reasons for fearing that productivity may rise less than in the past. One reason commonly cited is the increased proportion of the population that will be employed in industries whose gains in productivity are slow. Although there is no assurance that productivity in the U.S. economy will rise as fast as in the recent past, extraordinary increases in the rate of productivity have been achieved by some other countries, notably Japan. This fact at least raises, though it does not answer, the question whether there are applicable policies that would also accelerate productivity here.

The rates of growth of total capacity to produce and of output per hour of work will depend principally on the decisions of individuals and businesses—decisions about saving and investing, about the education of children and the training of adults, about the pursuit of opportunities to earn higher incomes. Still, the actions of Government also affect the rate of growth and must be evaluated from that standpoint. The policy of this Administration has been aimed at sustaining the rate of growth of productivity to which we have been accustomed and if possible raising that rate moderately. A drop in the rate of growth of productivity below the expected increases in real wages and in real taxes would generate difficult tensions, especially when the illusions of inflation were fully recognized. A higher rate of productivity growth would be desirable to satisfy escalating demands, but in the American free market economy the Government's ability to stimulate growth in productivity is limited.

Some of the major policies of the Administration to promote growth may be briefly noted:

The struggle against inflation is itself critical for economic growth. The institutions for mobilizing savings in the United States and channeling them into investment depend basically upon reasonable confidence in the value of the dollar. Many kinds of investment which make a valuable contribution to growth would suffer if the future stability of the general level of prices became highly uncertain.

The Administration has kept Federal spending on a path that would not exceed the revenues the tax system would yield under conditions of full employment. With this policy the Federal Government does not absorb private funds to finance a deficit when the amount of private investment is crowding against the supply of savings.

Despite the stringency of the budget position, the Administration has supported a continued strong Federal effort to promote research and development. Total obligations for the conduct of research and development in fiscal 1972 will be \$16.7 billion, according to the Budget just submitted, up 8 percent over 1971. For research alone the increase will be 9 percent, and most of that is outside the defense program. Obligations of the National

Science Foundation for research will be 44 percent higher than in 1971 and 71 percent higher than in 1970.

The Administration has supported an increase in manpower training programs as a means of speeding up the improvement of the capabilities of the labor force. Training is also a way of helping workers to adapt to changing requirements in labor markets and thus of reducing the amount of unemployment. The Budget submitted by the President in January provided for an increase of 40 percent in outlays for manpower programs, between fiscal year 1970 and fiscal year 1972. In addition the Administration has proposed a reorganization of the training programs to improve their effectiveness and adaptation to local needs.

A new expanded program of student loans, grants, and work-study payments with subsidies based on need has been proposed to ensure that the post-secondary education of those persons whose higher education would be most valuable to themselves and to the Nation is not limited for financial reasons. It is estimated that 2.5 million students will receive benefits from this program in fiscal 1972.

The Federal Government is the largest employer in the country, having over 2.5 million civilians on its payroll at the end of 1970. An increase in the productivity of these workers would have a marked effect on average productivity in the economy as a whole. The Administration is making a determined effort to improve management and personnel utilization throughout the Federal service. Probably the most fundamental step in this direction was the reorganization of the postal service to permit the application of businesslike standards of investment and management.

## TAXES AND GROWTH

In 1969 the Administration supported repeal of the investment tax credit. At that time it was an excessive stimulus to business investment in view of competing demands on the economy. In the Tax Reform Act of 1969 the Congress went considerably beyond this. By changing a number of provisions of the tax law, it raised the tax burden on investment, through higher levies on corporate profits, and thereby reduced both the supply of internal funds available for business investment and the incentive to invest. At the time the Administration suggested that if Congress considered the particular changes essential for reasons of equity or other considerations it should offset their overall effect by reducing the corporate profits tax rate. Congress did not, however, accept that suggestion.

The repeal of the investment tax credit, combined with the other features of the Tax Reform Act of 1969, yielded a tax revision that was excessively burdensome on business investment, and the Administration recognized that this imbalance would need to be redressed at an early date. Surveys of business investment for the period immediately ahead now indicate a flattening in money terms and probably some decline in real terms in this key ingredient for future economic growth. This is an appropriate time to reduce the bur-

den on business investment. Accordingly, the President has announced a revision of the depreciation rules that will provide greater incentive for business to invest in capital equipment. This will be accomplished by permitting tax lives which are shorter by 20 percent for most types of equipment. Although the effects may build slowly, the stimulus to business investment will help to support the recovery of the economy as well as to stimulate economic growth and productivity.

## THE NATIONAL COMMISSION ON PRODUCTIVITY

Recognizing the importance of economic growth in the future of America and the contribution that all sectors of the society could make to it, the President in June 1970 established the National Commission on Productivity. The Commission included representatives of business, labor, the general public, and the Federal Government. Its basic function is to recommend policies, not only for the Federal Government but for others as well, to speed up the rise in productivity.

The Commission was established against the background of concern with the inflation problem. The importance of productivity as an offset to increases in labor costs per hour is well recognized. However, the purposes of productivity improvement and the interests of the Commission extend beyond the control of inflation. Improvement in our levels of living, including improvement of our physical environment, depends on productivity gains. The stakes here are high. If we could, for example, increase the rate of productivity growth by only one-tenth of 1 percent a year, we could produce \$15 billion of additional output per year by the end of this decade.

In pursuit of its objectives the Commission has organized itself into four working groups, designated by the general topic which each will examine. They are:

1. Education and research.
2. Management organization and capital.
3. Labor and management policies and practices.
4. Government activities.

Each of the working groups has within its scope a large number of potential policy questions and programs for review. Each group will consider the broad, aggregative issues coming under its jurisdiction—such as the impact of education and of research and development on productivity; capital investment needs and their implications for savings; practices in collective bargaining that lead to higher productivity and higher rewards to workers; and the influence of Government actions such as procurement, regulation, and construction contracting. The Commission also plans to make studies or recommendations about specific industries, especially where productivity is relatively low; the utilization of scientific and technical manpower; and methods of improving productivity in Federal, State, and local government.

## ECONOMIC GROWTH AND NATIONAL PRIORITIES

If it is agreed that economic output is a good thing, it follows by definition that there is not enough of it. This fact means in turn that choices must be made among uses of it. Each of us is constantly encountering this necessity in the management of his private affairs. By and large the way the national output is used is decided by millions of decisions of private households. But the question of how it ought to be used—commonly labeled the question of national priorities—has been a matter of increasing national concern. There are several reasons for this. First, the degree to which the Federal Government influences the uses of the national output has increased, and the degree and pattern of Federal influences that are desirable is itself an open question. Second, the validity of private decisions about the use of resources is increasingly being challenged.

The effects that Federal policy may have on the uses of the national output are usually considered in the context of the annual budgetmaking and appropriations process. The underlying notion is that a certain amount of money, presumably representing claims on the national output, is to be allocated to Federal use and then divided up among alternative Federal uses, such as defense, health, or highways. The annual budgetary process is essential because it forces periodic evaluation of many Federal programs, and it will undoubtedly continue to be a basic framework for making decisions. However, if we are to understand and control what we are doing, it is necessary to go beyond the annual allocation of the Federal budget total and consider over a longer span of time and within a wider framework the Federal influence on the allocation of the total national output.

There are several reasons for viewing national priorities in a larger context. One is that many Federal budget decisions strongly influence State and local decisions as well as private decisions. It is often difficult to quantify exactly how and to what degree these other decisions will be affected, but in some cases the influence is clearly substantial. There are many ways in which Federal budget decisions influence private and State and local decisions. The volume of Federal transfer payments affects the level and composition of private consumption. The volume and character of Federal grants-in-aid affect the level and character of expenditures by State and local governments. The volume and character of Federal loans, interest subsidies, and tax provisions affect the volume and character of private investment. Federal provision of services and facilities, such as highways, influences the level and character of private and State and local spending, since these services and facilities in some cases compete with and discourage non-Federal expenditures and in other cases complement and encourage them.

Although it is often difficult to define precisely how these Federal decisions influence non-Federal decisions, the pervasiveness of the phenomenon means that the influence of Federal on non-Federal decisions cannot be ignored. One major purpose behind the projections of GNP and its com-

ponents that were presented in the 1970 *Economic Report of the President* and are continued this year is to account for some of the indirect effects of Federal budget decisions.

A second major reason for analyzing Federal budget decisions in a broader context is that the consequences of decisions almost always extend well beyond the annual reach of the budget. For example, the Housing and Urban Development Act of 1968 stipulated a goal of 26 million housing units for the 10-year period 1968-78. This Federal decision about national priorities actually concerned the share of GNP devoted to housing, not the share of the Federal budget related to housing. But it was also a declaration which had an important bearing on the targets for national investment and savings and on use of resources for the entire 1968-78 period. Such decisions are, of course, not irrevocable and need to be reconsidered in the light of changing conditions and goals. This is not, however, a substitute for initially exercising as much foresight as possible. There are many other examples of Federal laws or budget decisions that have important and long-lasting implications for the determination of national priorities. The recent act to increase Federal pay commensurately with private wages and salaries links the Federal budget to wage increases in the private sector. The proposed automatic increases in Social Security payments in response to increases in the consumer price index is another example of budget decisions for the future that are built into current law and are therefore beyond control except by further legislation. Another extreme example that illustrates the degree to which future decisions about priorities are made today is Federal loan subsidies. Such subsidies may be very small for any one year, including the initial year, but they do commit the budget to large and growing outlays in future years. Sections 235 and 236 of the National Housing Act, for example, provide for mortgage payments and interest subsidies entailing new commitments for 1971 amounting to an estimated \$400 million. If the programs remain on the books and new commitments continue at the 1971 rate, the annual outlay would ultimately stabilize at \$14 billion per year, since the subsidized mortgages have an average term of 35 years. While these programs are playing an important role in the achievement of social objectives, they do limit flexibility in changing the budget in the future and in changing the composition of future national output.

A third reason for making projections for the entire economy rather than for the budget only is that many Federal decisions which affect the allocation of the national output do not pass through the Federal budget. This is true of many regulatory decisions and decisions about monetary policy, for example. A Federal decision to require antipollution devices will require additional investment that can only be made at the expense of other uses of our national output. This investment will then not be available for projects that improve efficiency in the more orthodox sense, and therefore gains in measured productivity may be smaller, product prices higher, and increases in the array of goods and services available to consumers smaller. While this

decision to require antipollution devices does not enter the budget, it does require or imply an important decision about national priorities and the uses of national output.

The pervasive effects of Federal decisions throughout the rest of the economy and through time require close scrutiny of Federal decisions to ascertain their total impact. Unfortunately, many of the linkages are not well known and can only be approximated at this time. Even such a rough outline, however, may be more helpful than ignoring the problem entirely.

## FUTURE NATIONAL OUTPUT AND CLAIMS UPON IT

This section presents estimates of the total output that would be available in 1975–76 if the capacity of the economy were fully utilized. It also offers some very tentative estimates of the uses that would be made of that output as a result of existing Federal programs and of the claims and propensities observed among private businesses, households and State and local governments. The estimates are summarized in Table 26.

The procedures for deriving the potential supply of GNP and the visible private and government demands when the economy is operating at potential are similar to those used in the 1970 *Economic Report of the President*. The projections of Federal expenditures incorporated in the estimates are shown in Table 27.

The *gross national product available* is estimated on the basis of assumed characteristics of supply in the economy in the next 5 years. The principal element in this computation is an assumed 3-percent trend rate of increase of productivity (output per labor-hour) in the private economy. No method exists for estimating precisely the productivity growth of the economy over a long period, since it is subject to the rate of technical progress, the industrial composition of output, the mobility of the labor force, and many other complex influences. Behind the assumption of 3-percent productivity growth is an industrial composition of output that shifts fairly rapidly toward the service sector and the government sector. This shift toward sectors with historically low rates of productivity gain and low levels of productivity tends to generate a lower rate of productivity increase for the entire economy. The assumed rate of technical progress varies, of course, from industry to industry. The specific detail behind this productivity assumption is available in Table A-15: *The U.S. Economy in 1980*, Bureau of Labor Statistics Bulletin No. 1673. The total labor force and the civilian labor force are assumed to rise about 1.8 percent per year in line with projections of the population and of labor force participation rates. It is also assumed that average hours worked will decline by 0.2 percent per year in the private sector.

These assumptions, and others about how output will rise as the total labor force increases and about the private and government composition of final output, yield a potential growth rate of GNP of about 4.3 percent. The actual real GNP could in any year be above or below the potential,

TABLE 26.—*Real gross national product, 1955, 1966, and 1969, and projections for 1975–76*

Claim	Actuals			Projections	
	1955	1966	1969	1975	1976
Billions of dollars, 1969 prices					
Gross national product available.....	569.0	845.5	931.4	1,199	1,251
Claims on available GNP.....	569.0	845.5	931.4	1,188	1,232
Federal Government purchases.....	69.8	88.3	101.3	83	83
State and local government purchases.....	53.8	94.4	110.8	140	144
Personal consumption expenditures.....	344.3	519.2	577.5	768	802
Gross private domestic investment.....	96.9	137.5	139.8	192	198
Business fixed investment.....	55.1	92.0	99.3	128	134
Residential structures.....	34.5	29.4	32.0	52	52
Change in business inventories.....	7.3	16.1	8.5	12	13
Net exports of goods and services.....	4.2	6.1	1.9	5	5
Unallocated resources.....	.0	.0	.0	11	19
Addendum: Federal surplus or deficit (—), national income accounts basis.....	5.6	—2	9.3	25	32
Per capita personal consumption expenditures.....	2,083	2,637	2,842	3,529	3,641
Percent of total GNP available					
Gross national product available.....	100.0	100.0	100.0	100	100
Claims on available GNP.....	100.0	100.0	100.0	99	99
Federal Government purchases.....	12.3	10.4	10.9	7	7
State and local government purchases.....	9.5	11.2	11.9	12	12
Personal consumption expenditures.....	60.5	61.4	62.0	64	64
Gross private domestic investment.....	17.0	16.3	15.0	16	16
Business fixed investment.....	9.7	10.9	10.7	11	11
Residential structures.....	6.1	3.5	3.4	4	4
Change in business inventories.....	1.3	1.9	.9	1	1
Net exports of goods and services.....	.8	.7	.2	( <sup>1</sup> )	( <sup>1</sup> )
Unallocated resources.....	.0	.0	.0	1	2
Addendum: Federal surplus or deficit (—), national income accounts basis.....	1.0	.0	1.0	2	3

<sup>1</sup> Less than 0.5 percent.

Note.—Projections are based on projected Federal expenditures (see Table 27) and their influence on various components of GNP.

Detail will not necessarily add to totals because of rounding.

Sources: Department of Commerce and Council of Economic Advisers.

TABLE 27.—*Projections of Federal Government expenditures, national income accounts basis, 1975–76*

[Billions of dollars, 1969 prices; calendar years]

Type of expenditure	Projections	
	1975	1976
Federal Government expenditures.....	216	217
Purchases of goods and services.....	83	83
Transfer payments to persons <sup>1</sup> .....	84	86
Grants-in-aid.....	30	30
Other.....	18	18

<sup>1</sup> Excludes transfer payments to foreigners, which are included under "other".

Note.—Detail will not necessarily add to totals because of rounding.

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

though it is the object of policy to keep a reasonable balance between actual and potential output. This chapter is concerned with the allocation of the total output when it is equal to potential.

Briefly stated the other major components are determined as follows:

1. *Claims on Available GNP*. These are the sum of the demands for output (items 2 through 7).

2. *Federal Purchases*. These involve a projection of the costs of existing Federal programs and new initiatives proposed by the Administration. The dollar costs of existing programs have been increased where this is proper to allow for the growing population, the rising workload, Federal pay increases, and relative price increases of the goods the Federal Government buys. These dollar costs are then deflated to 1969 prices.

3. *State and Local Purchases*. The growth of these purchases in real terms is assumed to be a function of the rise in real GNP, Federal grants-in-aid, and the population.

4. *Personal Consumption*. Purchases by consumers are assumed to be a function of real GNP, Federal personal taxes, State and local taxes, Federal transfers, State and local transfers, and a level of personal saving that averages 6.5 percent of personal disposable income.

5. *Business Fixed Investment*. In real terms this component is estimated to be about 12 percent of real private GNP in 1976. This proportion has been adjusted upwards from the assumption used in the 1970 *Economic Report of the President* because of the shortfall of actual below expected investment in 1970 and 1971 and because of the effects of the recently adopted accelerated depreciation allowances.

6. *Residential Construction*. In real terms this component is estimated to follow a path that achieves the 26 million housing units explicitly called for in the Housing and Urban Development Act of 1968.

7. *Inventory Investment and Net Exports*. Both are expected to rise slowly at about the same rate as total real GNP.

According to these estimates, present programs and tendencies would leave unallocated to any specified use 1 to 2 percent of the potential output in 1975-76. This does not mean that this proportion will find no demand and will therefore remain unproduced. Whether that happens or not will depend on factors such as fiscal and monetary policy discussed elsewhere in this report. What it does mean is that the simple relationships used here do not tell how that 1 to 2 percent of the potential output will be used. There are various possibilities for its use. If the economy is kept at its potential by monetary policy, for example, then an excess supply of savings implicit in the projected excess supply of output would depress interest rates; it would probably also reduce planned saving and raise investment, including residential construction. Another possibility is that taxes would be reduced, presumably with the effect of increasing private consumption and perhaps investment. A third possibility would be an increase

of Federal expenditures; in that case the effects on the pattern of output would depend on the nature of the expenditure.

The estimates also reveal a Federal budget surplus in the national income accounts of about 2 to 3 percent of potential output in 1975–76. This surplus does not by itself explain the existence of unallocated resources. In fact, as Table 26 shows, there were substantial surpluses in 1955 and 1969, when obviously there was no unallocated output, and actual output was approximately at the potential. So in 1975–76 the unallocated resources could be used without reducing the surplus. Still, two of the three methods listed above for allocating the unallocated resources—increasing expenditures and reducing taxes—would also reduce the budget surplus. In the simplest case, if all the unallocated resources were devoted to Federal purchases, the annual surpluses would be reduced to about 1 percent of potential output—which would be about the same as in 1955 or 1969. These surpluses would be an addition to private saving to finance private investment and State and local deficits.

However, the lesson in the estimates is not that there are unallocated resources for the mid-1970's, but that they are already so small. There is a natural tendency in the political process to add commitments for continuing expenditures while clipping away—slowly and gradually, or occasionally with bigger strokes—at the revenues. The margin for these actions is already small. Adding \$3 billion each year to the cost of existing programs, in 1969 dollars, would exhaust the unallocated economic resources that now appear for 1975–76. To insist on doing more, taking the expenditure and revenue sides of the budget together, would draw resources from other uses. If the lid were kept on the economy by tight money to prevent inflation, high interest rates would tend to draw these resources out of housing, State and local government outlays, and business fixed investment. If inflation were permitted, the share of the national income going to taxes would rise and cut real consumption. With higher prices there would be higher money incomes, but taxes would rise still more rapidly, since the Federal tax system is progressive. This is the simplest way in which excessive Government spending or a reduction of nominal tax rates restores the effective tax rate needed to equate aggregate supply with aggregate demand.

The estimates presented here reveal an increase in real consumption between 1969 and 1976 that is much faster than occurred from 1955 to 1969. In the earlier period real per capita consumption increased only 2.2 percent a year, while in the period ahead it is estimated to rise by 3.6 percent a year. Most of this difference is due to an expected faster rise in per capita output in the later period—3.1 percent against 2.1 percent. This estimated rise is in turn the result of the projected faster growth of the labor force relative to population in the years ahead. The remainder of the difference results from a faster increase in the share of consumption in the GNP, due mainly to reductions of tax rates and an increase of transfer payments. The reduction of taxes, the increase in transfer payments, and the consequent increase in the

consumption share are made possible by a reduction in Federal purchases, a reduction that shows up absolutely and even more as a share of the potential output. It is mainly a consequence of the projected absolute and relative decline of defense spending in real terms.

The sum of the growth in available resources and the decline in Federal purchases between 1969 and 1976 may be viewed as a "peace and growth dividend." It amounts to \$338 billion in 1969 dollars. About 66 percent of this would be absorbed by personal consumption according to the estimates presented here, almost 10 percent by State and local purchases, and the remainder, including 6 percent which still is unallocated, by the other categories.

The share of State and local purchases in the total remains almost unchanged despite the effect of revenue sharing, which is estimated to add about \$5 billion in 1969 dollars to State and local purchases by 1975. This means that per capita State and local purchases would be rising at a slightly lower rate than per capita output, about 2.6 percent a year in real terms compared with 3.8 percent from 1955 to 1969. During the years ahead the school-age population will be increasing much less rapidly than in the earlier period; since education counts for a very large proportion of the cost of State and local governments, we should therefore expect a slower increase in per capita State and local services.

The present estimate of unallocated resources in 1975 is slightly smaller than was estimated in last year's *Economic Report of the President*. Many of the components have changed but tended to have offsetting effects on the level of unallocated resources. On the one hand, the Federal budget, especially in transfers, grew much more rapidly than was projected a year ago, a fact which has tended to increase private consumption and State and local spending and to reduce the unallocated portion. On the other hand, the higher inflation than was expected in the last year has increased "real" Federal personal tax receipts at full employment (because of the progressiveness of the tax system); as a consequence projected private consumption has been reduced because the relatively higher Federal personal taxes reduce disposable income. More succinctly, higher inflation rates act like a tax on real income, but the rapid growth of transfer payments has sustained real disposable income.

#### ALLOCATION OF THE NATIONAL OUTPUT AMONG FUNCTIONS

For many purposes the discussion above covering the past and prospective uses of the national output classified by the purchaser (Federal, State and local governments, consumers, businesses) is significant. We are interested in the buyers who will claim the output and the size of the different markets that will absorb it. But "priorities" are also reflected in the distribution of the national output by functions or uses, such as health and educa-

tion, regardless of who is the purchaser. There is, for example, interest in how much of the national output is devoted to education, and whether it is paid for privately, by State and local governments, or by the Federal Government.

This section presents estimates of the allocation of the national output by certain broad functions and also the share that Government expenditures represent in the total for each function. It should be noted that the estimates are crude in many respects, the existing national accounts statistics not having been developed for the uses made of them here. The following discussion is offered as much to illustrate a fruitful approach that deserves more work as to suggest substantive conclusions.

The share of Government expenditures in a functional category is not an adequate measure of the amount of the total that is "due to" Government, with the implication that the total would be correspondingly lower if the Government's share were lower. Obviously, Government cannot be adding to the share of all functions. The output would be divided among all the functions somehow even if there were no Government. It cannot even be assumed that Government always enlarges those functions when it spends more than the average. Government expenditures on occasion may displace private or State and local expenditures—or it may attract them. Nevertheless, the figures provide an initial basis for thinking about how the national output is used and how the Federal Government may be influencing the process.

The allocation of the national output over the past 15 years is shown in Table 28. The appendix to this chapter gives a more exact definition of the different functions. The years that were chosen for Table 28 are years when the economy was at or near full employment; the comparisons between these years are therefore not affected by substantial differences in the economy's operating rate.

TABLE 28.—*Percentage distribution of GNP in current prices, by function, 1955, 1966, and 1969*

Function	Percent of total GNP, current prices		
	1955	1966	1969
Total GNP.....	100.0	100.0	100.0
Basic necessities.....	45.7	42.3	41.6
Education and manpower.....	3.7	5.7	6.3
Health.....	4.1	5.6	6.4
Transportation.....	10.6	9.9	10.0
General government.....	2.0	2.7	3.1
Defense.....	9.3	7.8	8.3
New housing.....	5.9	3.5	3.7
Business fixed investment.....	9.6	10.9	10.7
Net exports and inventory change.....	2.0	2.7	1.1
All other.....	7.1	9.0	8.8

Note.—Detail will not necessarily add to totals because of rounding.

Sources: Department of Commerce and Council of Economic Advisers.

Changes over the past 15 years have been substantial but are not unexpected. With the advance in per capita incomes, it is not surprising that

spending for basic necessities, such as food, clothing, and rents (actual and imputed), has declined in relation to GNP. There has also been a general trend away from defense and housing investment.

The sectors where strong growth in demand has occurred are education, health, and general government. The general government category includes expenditures for fire and police departments and natural resource programs, including pollution abatement. Those sectors where expenditures are increasing are also the sectors where prices have risen very rapidly. If the GNP and its functional components were adjusted for these relative price increases, the distribution of the functional components would be different, and shifts in the distribution probably would not be as marked.

The role of the Federal Government in this shift in the character of output has been important. It is simple to measure the direct Federal and State and local purchases in each of the functional categories. But the direct share of national output that the Federal Government purchases does not fully represent its influence in determining the composition of national output. For example, the Federal Government influences the functional composition of GNP through its grants programs. Large grants have been made to State and local governments, and these grants, which are tied to particular uses, have accounted for an increasing portion of the Federal budget. Also, transfer programs, such as Medicare, have been increasing rapidly in recent years. These transfers are often tied to particular end uses of GNP, and so they are also important determinants of the final composition of GNP. Table 29 lists the functional composition of the Federal budget.

TABLE 29.—Percentage distribution of total Federal Government expenditures, by function, 1955, 1966, and 1969

[Percent]			
Function	1955	1966	1969
Total Federal Government expenditures <sup>1</sup> .....	100.0	100.0	100.0
Basic necessities.....	23.2	27.2	29.5
Education and manpower.....	2.3	3.7	3.8
Health.....	1.7	4.3	8.0
Transportation.....	1.8	4.3	3.5
General government.....	3.4	3.8	3.6
Defense.....	60.0	45.9	44.2
New housing.....	.3	.7	1.2
All other.....	7.8	10.0	6.2

<sup>1</sup> Include purchases of goods and services, grants-in-aid, and transfer payments; exclude net interest and subsidies less current surplus of Government enterprises.

Note.—Detail will not necessarily add to totals because of rounding.

Sources: Department of Commerce and Council of Economic Advisers.

The direct and indirect share of the national output for each function that can be traced back to total Federal expenditures is shown in Table 30. The general trends toward education and health care are evident in this table because the Federal contribution in these areas is made primarily through grants and transfers. It is assumed here that a transfer or a grant for a specific function is equivalent to a direct purchase by the Federal Government. This

is a reasonable assumption because many of the grants and transfers for these purposes are directly tied to purchases by the private sector or by State and local government sectors.

TABLE 30.—*Total direct and indirect Federal Government expenditures as percent of output used, by function, 1955, 1966, and 1969*

Function	Percent of output used <sup>1</sup>		
	1955	1966	1969
Total Federal Government expenditures <sup>2</sup> .....	15.5	17.0	18.6
Basic necessities.....	7.9	11.0	13.2
Education and manpower.....	9.8	11.0	11.2
Health.....	6.4	13.2	23.4
Transportation.....	2.7	7.5	6.5
General government.....	25.5	24.3	21.2
Defense.....	99.9	99.9	99.8
New housing.....	— .7	3.6	6.1
All other.....	17.1	18.9	13.2

<sup>1</sup> Federal expenditures for each function as percent of GNP for that function. See footnote 2.

<sup>2</sup> Total Federal expenditures as percent of total GNP. Expenditures include purchases of goods and services, grants-in-aid, and transfer payments; exclude net interest and subsidies less current surplus of government enterprises.

Sources: Department of Commerce and Council of Economic Advisers.

Transfers and grants that are not tied to specific purchases in a sector are assigned to “basic necessities.” For example, Federal welfare payments and Social Security payments are rarely tied to specific purchases, but it may be assumed that they are used by and large for food, clothing, and rents. On this assumption, it is evident that the Federal share in this sector has grown very rapidly in the past 15 years.

Finally, the total public share of these functions—both direct and indirect—is shown in Table 31. This table is similar to Table 30 except that it emphasizes the important traditional role of State and local governments in such functions as general government and education.

TABLE 31.—*Total direct and indirect Federal and State and local government expenditures as percent of output used, by function, 1955, 1966, and 1969*

Function	Percent of output used <sup>1</sup>		
	1955	1966	1969
Total Federal and State and local government expenditures <sup>2</sup> .....	23.2	26.7	29.6
Basic necessities.....	9.9	13.2	15.8
Education and manpower.....	89.3	86.7	87.0
Health.....	23.4	28.8	39.9
Transportation.....	16.3	20.4	20.2
General government.....	100.0	100.0	100.0
Defense.....	100.0	100.0	100.0
New housing.....	.1	4.7	6.3
All other.....	18.8	20.8	15.0

<sup>1</sup> Government expenditures for each function as percent of GNP for that function. See footnote 2.

<sup>2</sup> Total Federal and State and local government expenditures as percent of total GNP. Expenditures include purchases of goods and services and transfer payments; exclude grants-in-aid, net interest, and subsidies less current surplus of government enterprises.

Sources: Department of Commerce and Council of Economic Advisers.

What do these data suggest about the uses of the Nation's output? While the estimates are tentative and involve more than the usual quota of statistical uncertainties, several conclusions are at least suggested.

First, it is clear that since the mid-1950's the Nation has been increasing steadily the share of its economic resources devoted to education and manpower training, health, general government, and business investment. In effect we made room for their rising shares by reducing the proportion of our economic resources devoted to national defense, residential construction, and basic necessities. Since prices rose most rapidly in those markets where productivity growth was low and demand was strong, changes in the pattern of output would be more moderate if output were expressed in constant prices throughout, but the same pattern would be evident. This is a judgment that cannot be verified for the economy as a whole with existing price deflators; it can be verified, however, and is true for the private sector of the economy. Since the decline in resources absorbed by the provision of basic necessities was small, and would be expected in an economy with rising incomes, the significant shift was from national defense and residential construction to education, health, business capital formation, and general government.

Second, the data provide some indication of the extent to which public budgets have led the way in changing national priorities. The question itself is, however, a difficult one. Growing government outlays for a function which is itself growing in importance would suggest that this government activity was resulting in the allocation of more total economic resources to that function. Indeed, an increment of public outlays may attract private resources to the same use. Government's influence on the allocation of resources might, however, work the other way. If the Government assumes more direct responsibility for certain functions, private claims on resources may be increasingly devoted to other functions. Therefore we cannot be certain that more resources are being used in those areas where Government contributions have increased. Government inevitably provides all services for some functions such as general government or national defense through public budgets, and it therefore has direct control over the share of the national output devoted to these functions.

Nevertheless, in spite of the ambiguities in the interaction of public and private decisions, some things can be said about the impact of government fiscal activities on changes in the use of our economic resources. For one thing, public outlays, as indicated in Table 31, have been growing in importance relative to the size of the economy. They have risen from an amount equal to 23.2 percent of GNP in 1955 to 29.6 percent in 1969, the growth being about evenly divided between Federal outlays and outlays of State and local government units. The most dramatic and clear-cut effect of public budgets on uses of output seems to have occurred in health-related outlays. The share of our total economic output used for health care rose from 4.1 percent of GNP in 1955 to 6.4 percent in 1969. And the share of these out-

lays that was financed by public expenditures rose dramatically from 23.4 percent in 1955 to 39.9 percent 14 years later. Public outlays also increased as a share of the total economic resources devoted to basic necessities, housing, and transportation.

Within the public sector the Federal Government increased its share in financing most of the categories of uses of output, health expenditures being the most striking example, with housing expenditures next. State and local governments, however, are providing a larger share of total general government services than in 1955.

These data suggest that there are many different forces influencing the final composition of the national output. Most of these express themselves in the private sector of the economy, primarily because it is still the largest sector. There has been a marked shift in the composition of the Federal budget, but that shift is only weakly translated into a similar shift in the composition of national output. However, it is important to recognize that some Government programs are designed to change not the composition of final output but the distribution of income. For example, the growth in Federal expenditures associated with basic necessities is related to the large increases in income maintenance payments between 1955 and 1969. This type of program is designed primarily to redistribute income and not to change the functional allocation of the GNP. Consequently, expansion of programs to redistribute income could very well have substantial, little, or no effect on the functional allocation of GNP. This means that neither the breakdown of GNP by purchasers given in Table 26 nor the functional breakdown of GNP given in Table 28 is a completely appropriate framework for the analysis of government policies designed to change income distribution.

## CONCLUSION

The illustrative projections of GNP and the claims on GNP establish a broad framework for the analysis of priority decisions.

Federal budget decisions influence many of the demand components of GNP, and this influence will be quite pervasive in the next 5 years. The magnitude of demands on resources according to this long-range outlook is very great when consideration is given to projections of existing tax and expenditure programs. The potential output left over after visible claims are met is small. If new claims are to be satisfied beyond that, some existing claims will have to be cut. This can be done by tax or expenditure changes. Such changes require explicit decisions which are difficult to make, but they are necessary if a significant shift in the composition of output is desired. One alternative to making hard choices is inflation, since inflation is a process by which competitive claims on output are finally arbitrated. But this is a capricious way to resolve these conflicting demands.

When the allocation of GNP among certain functional components is examined, it is clear that there have been substantial changes in the past 15 years. Most of these changes are attributable directly to private decisions,

since many of the Federal budget changes were not closely related to changes in the allocation of GNP. This reflects the fact that the private sector is by far the largest sector in the economy, and there are probably some important substitutions between private decisions and Federal budget decisions.

## APPENDIX

### Definitions of Functional Components

The composition of each of the eight functional components of GNP (basic necessities, education and manpower, health, transportation, general government, defense, new housing, and all other) is described below. Each function is defined as the sum of private purchases and government purchases. The sum of the eight functions, together with business fixed investment, the change in inventories, and net exports, comprises GNP. Private expenditures were obtained from the *Survey of Current Business*, Table 2.5: Personal Consumption Expenditures by Type of Product. The source of the government expenditures was Table 3.10: Government Expenditures by Type of Function. Federal purchases and State and local purchases were added to obtain total government purchases.

The government sector contributes directly to the functions through purchases and indirectly through transfer payments. Within the government sector, the Federal Government contributes to the State and local expenditures through grants-in-aid. A more detailed description of the functional categories and the data used are available from the Council of Economic Advisers.

The descriptions below broadly identify the functional components that are used in the national income accounts and were arranged to form eight principal functional categories. The descriptions do not attempt to justify the inclusion or exclusion of different kinds of spending in different functional categories. It is often difficult to determine in any precise way how the categories should be defined, and in the classification process there are many serious problems that cannot be resolved without some judgment. But it is hoped that the composition of the final output and the trends in the relative shares of the categories are not seriously affected by the ambiguities of classification.

It is worth noting again that these GNP components do not measure intermediate products that often serve a useful purpose aside from their contribution to the real value of the final product. On-the-job training is a good example of an educational function that is not counted as real output. Furthermore, the functional categories are not wholly consistent since the functional categories for government spending are only partly consistent with those for private spending. There are other shortcomings of these data,

but they are probably sufficiently accurate to present a broad view of the composition of output.

### *Education*

Under education are included private expenditures on education and research, together with government expenditures on education, on the education and training of veterans, and on labor.

### *Health*

In the private sector the health expenditures consist of medical care expenses, and in the government sector expenditures cover health and hospitals, veterans' hospitals and medical care, Medicare, and Medicaid.

### *Transportation*

In the private sector the transportation category consists of expenditures on transportation, excluding the purchases of mobile homes, which come under basic necessities. The public sector includes outlays on highways, water and air transportation, and transit.

### *Basic Necessities*

The function labeled basic necessities contains several different parts. The private sector includes expenditures on food and tobacco, clothing, accessories and jewelry, personal care, housing (rents and the purchase of mobile homes), household operation, and religious and welfare activities. The government sector purchases include purchases for public utilities (electricity, water and gas), for agriculture and agricultural resources, and for social security and special welfare. Most transfer payments not given for specific purposes are included as indirect government contributions to basic necessities, since they are assumed to support private purchases of food, clothing, and rents. These transfers are principally in the form of veterans' pensions, welfare payments, unemployment compensation, and Social Security payments.

### *New Housing*

Expenditures on new housing included in this function are private investment in residential structures (National Income Accounts, Table 1.1) and government expenditures on public housing, urban renewal, and community development. The government sector has a negative value for housing in 1955 because some housing built in World War II was sold by the Federal Government to the private sector.

### *Defense*

The defense function is defined as government defense purchases, excluding atomic energy expenditures. There are no private sector purchases associated with defense. The State and local functions in this sector pertain to the National Guard.

### *General Government*

The general government function consists of government purchases in general government administration, sanitation, civilian safety (fire, police, correction), and natural resources (conservation and recreation). There are, of course, no private expenditures for general government.

### *All Other*

The function labeled all other contains expenditures on those activities not included in the other seven categories. In the private sector are thus included personal business, recreation, and foreign travel. In the public sector are included atomic energy development, space research and technology, international affairs and finance, regulation of commerce and finance, and postal services.

## CHAPTER 4

# Economic Growth and the Efficient Use of Resources

**WE ARE, AS THE ANALYSIS IN CHAPTER 3 MAKES CLEAR,** at the beginning of a decade during which claims on our productive resources will be unusually intense. In addition to continuously rising demands for goods and services for private and public use, urgent new claims on our economic resources have also emerged, such as the call for an improved environment. While the growth in our productive capability will also be rapid, 50 percent during this decade being a reasonable expectation, we must think in new terms about the deployment and organization of our economic resources if this growth is to be reasonably balanced. The purpose of this chapter is to explore selected program and policy issues that will require some new thinking if our economic system is to make its maximum contribution to national well-being.

The success of our economic system in achieving this goal requires that the full social cost be paid for the use of resources. Most of our productive resources are, of course, privately owned and can only be used if they are compensated according to their cost. The worker must be paid for his labor; the property owner expects a return for the use of his investment in land or productive facilities. Competition in the free market will normally lead to the optimal use of these resources. Under certain circumstances, however, the cost to society as a whole will not be the same as the private cost of the resources. For example, when a person drives his car during the rush hour he pays the cost of the gasoline he uses; but he pays none of the cost of the additional congestion he helps create, except to the relatively small extent that he himself is adversely affected. This means that resources may not always be allocated in a way which best serves the national welfare.

Social costs may exceed or fall short of private costs for many different reasons. For example, when there is no clear private ownership of a resource, the market cannot operate in such a way that the consumer pays the full social cost. When a monopoly controls a good or service, the price will tend to be above both the private and the social cost of production. Government regulation of prices or output can also force prices above or

below true social costs; examples in the fields of transportation and energy will be discussed in this chapter.

In cases where goods are overpriced or underpriced compared with their true social cost, their consumption patterns tend to be distorted and the value of national output is diminished. A striking example of this problem, recently and forcibly brought to public attention, is the underpricing of clean air and water in many communities. Because there are no property rights for the air and for most bodies of water, air and water have traditionally been treated as free goods to be used at no cost for disposal of wastes. This arrangement does not necessarily cause problems. As long as the wastes do not exceed its assimilative capacity, the environment itself performs valuable services free. But when the assimilative capability of the environment is exceeded, pollution imposes real physical and psychic costs on the community. Clean air and water are then no longer free for society as a whole. The growing number of such cases has led to numerous demands for Government action.

In other areas where Government has intervened to set prices for certain goods and services and otherwise to control their availability, the results have often prevented the efficient use of resources. Many Government regulatory policies, for example, were formulated under conditions which no longer exist, and these policies may have to be reconsidered if we are to have the growth and efficiency in our economic system to meet rapidly mounting claims on output.

## POPULATION GROWTH AND ECONOMIC GROWTH

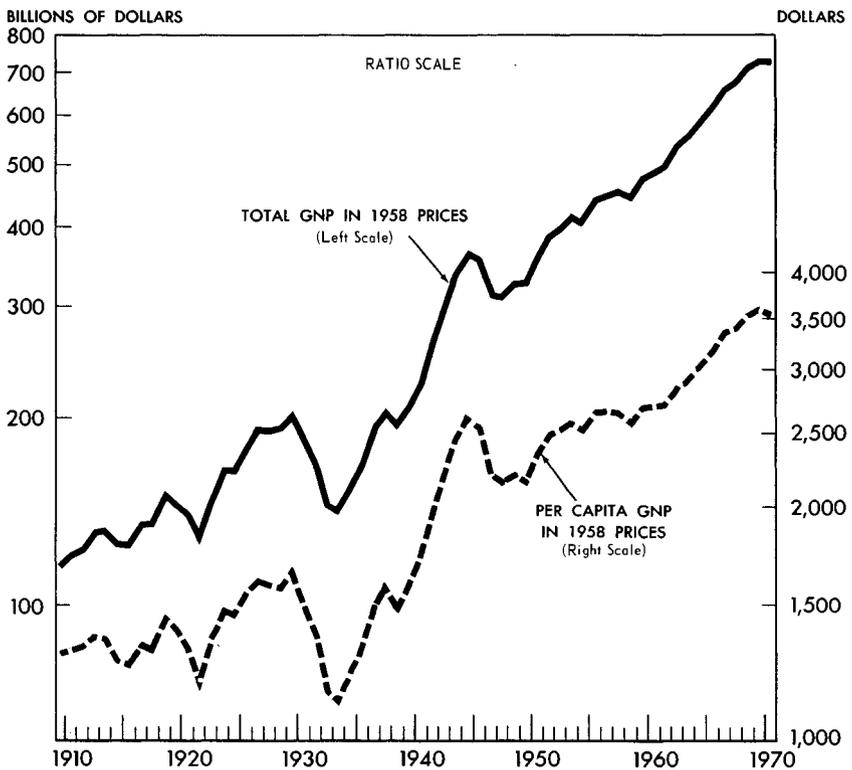
The growth of population and its concentration in metropolitan areas have raised increasingly urgent questions bearing on public policy and the efficiency and growth patterns of our economy. Historically, a growing and mobile population has been a major source of economic development in the United States. The waves of migration and the push westward encouraged by our early land settlement policies accelerated the process of converting an undeveloped land into the world's most productive economy. As the population grew and spread over the country, agriculture, transportation, manufacturing, and commerce expanded dramatically. Large markets stimulated production and permitted economies of scale to be realized. Although the population is now growing at a lower rate than in the past, the absolute increase continues to be high. The population has also remained unusually mobile, and this mobility has helped people find the jobs for which they are best suited. Along with industrialization, there has been steady migration to urban centers, where economic, social, and cultural opportunities are more abundant, but where new problems are being created. Conversely, the problems in many rural areas are those associated with a declining population.

## GROWTH AND SIZE: IMPLICATIONS

The magnitude of these changes is striking. Since the first census in 1790, the U.S. population has increased from 3.9 million to 205 million. Economic growth, as measured by real GNP, has proceeded even more rapidly than population growth. In the past 60 years, population has increased by 122 percent while real GNP increased sixfold, so that per capita real GNP increased by 171 percent (Chart 7). Historically, then, population growth has clearly not prevented a rapid rise in levels of living as reflected in GNP (see Chapter 3 for conceptual limitations).

Chart 7

### Growth in Real GNP, Total and Per Capita



SOURCE: DEPARTMENT OF COMMERCE.

The role of population growth in the country's future economic development is less clear cut. While population growth can be expected to lead to growth in total output, the key question is whether it will continue to bring about or be associated with growth in output per capita. With as large a population as ours and with our opportunities for trading with other coun-

tries, we may have exhausted many economies of scale. The past conjunction of rapid population growth and rapid economic growth does not imply that population growth is necessary for economic growth in the future.

Indeed many people are asking whether population growth may even be detrimental to further growth of output per capita or of some more comprehensive measure of individual well-being. While there appears to be no immediate threat, it is less clear that we can be equally sanguine about the next century. Population projections point toward a substantial further growth in the number of people. According to the "high" census projection, 321 million persons will be living in the United States in the year 2000, and the numbers will rise to 440 million in 2020. The "low" census projection estimates 266 million persons in 2000, and 299 million in 2020. Even if the fertility rate were to drop now to the level required for an eventually stable population, and no further immigration occurred, the population would not actually stabilize until the year 2037 because of the high proportion of young people in the present population. At that time, there would be about 276 million people in the United States.

Why are questions now being raised about the impact of population growth when such a rise in the numbers of people did not prevent, and indeed may have encouraged, the Nation's economic growth during most of its history? The present concern centers on the limited supply of certain types of resources. While it is impossible to specify the future adaptations in technology and consumption patterns that will conserve resources, past experience indicates that many unforeseen ways of meeting demands will be found. But some natural resources could become much more costly than they are now. Costs have risen, for example, as poorer deposits of minerals have been extracted and as water and other resources are recycled. The costs in terms of environmental damage, or in terms of the resources used to prevent such damage, will also increase. Certain natural scenic areas are almost fixed in supply; and, as they become more crowded, they may provide less enjoyment for those who use them.

Some of these problems will arise because of our increasing affluence, not because there are more people. Even by the year 2020 the high census projection would give us a population density of only 124 persons per square mile, about one-fourth that in Western Europe today. Each person will, however, demand more manufactured products, more housing, more transportation, more recreation, and more services, and this will affect environmental conditions. Rising affluence is at least as important as a growing population in creating additional demands on the supply of natural resources. At the same time, increased affluence makes it easier to bear the costs that thereby arise. The same factory that could well be denied a place in a rich country because it creates pollution would be welcomed in a low income country because it creates jobs. And more costly production processes which cause less pollution can be used in factories that do locate in a rich country.

## POPULATION DISTRIBUTION

Many of the problems that are commonly attributed to excessive population in the United States are actually caused by uneven distribution (Chart 8). We now have only 58 persons per square mile, about one-eighth of the density in Western Europe and less than one-tenth of Japan's. The density of the population, however, varies greatly within the United States. It ranges from 5,327 persons per square mile in the New York City area to 3.4 for Wyoming, and Alaska has only one person for each 2 square miles. Although areas with the lowest density at present have always been sparsely populated, the population of many rural areas has declined. The proportion of the population living in urban areas has been increasing steadily and now comprises more than 70 percent of the total.

An important factor in the changing distribution of population is the shifting composition of national output. When the country was largely agricultural, settlement was heavily influenced by the distribution of arable land. A substantial share of the population not employed directly in agriculture was employed in serving the agricultural population. Because of high transportation costs these persons located close to the farming areas. A multitude of small centers served the everyday needs of farmers, while larger, more widely spaced centers undertook activities which were needed less frequently or in which there were substantial economies of scale. As with agriculture, clusters of people also developed around such natural resource industries as forestry, mining, and fishing.

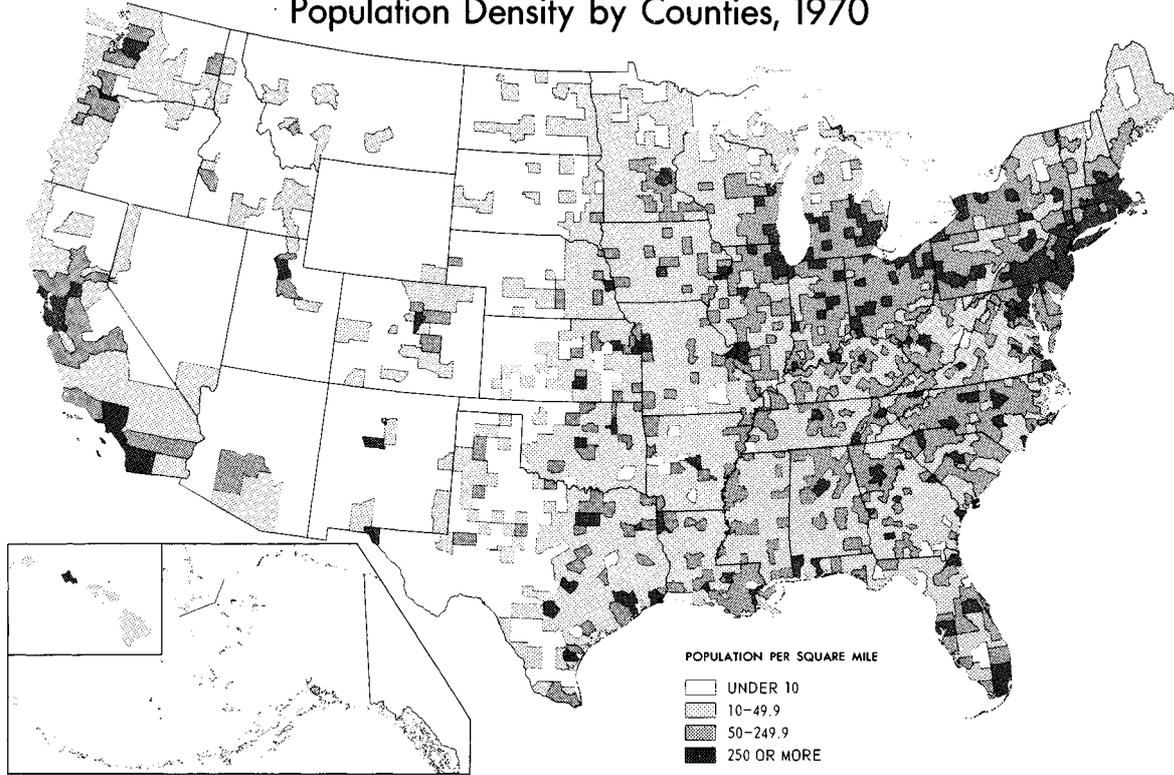
These primary industries no longer have a major influence on the distribution of population. The farm population, for instance, is now less than 5 percent of the U.S. total, compared to 15 percent in 1950 and 35 percent in 1910. The relatively slow growth of industries dependent on natural resources, the efficiency with which people and goods can be moved, and the more rapid expansion of manufacturing and service industries have encouraged further expansion of the already large population centers. These centers provide opportunities for specialization and economies of scale that would otherwise be impossible.

The distribution of populations within cities is also affected by changing cost factors. The lower the cost of transportation and the higher the value of spacious living, the more people will spread out around centers. As people spread out to the suburbs, industries follow. The factors that affect the distribution of people and jobs tend to reinforce each other. Jobs move in search of people and people move searching for jobs. As a result an initially small change in activity at a center can eventually have a large impact on its size.

The consequences of the tendencies discussed above can be seen in the population statistics. The population of the 24 metropolitan areas of more than a million people in 1960 grew 14 percent between 1960 and 1970, as compared to 10 percent for the remainder of the country. Metropolitan areas with more than a million persons now contain 39 percent of the total

Chart 8

# Population Density by Counties, 1970



SOURCE: DEPARTMENT OF COMMERCE

population. At the same time, the population within metropolitan areas is shifting from the central city to the suburban fringe. Fifty-seven percent of the people in metropolitan areas of more than a million lived outside the central city in 1970, compared to 51 percent in 1960. In 1969, families living in metropolitan areas of a million or more had average incomes 13 percent higher than those of families in smaller metropolitan areas and 37 percent higher than those of families outside metropolitan areas. (These figures do not take account of differentials in living costs.)

Concentration of people and economic activity, however, involves costs as well as benefits. Unless actions are taken to offset the effects of concentration, traffic congestion and air pollution increase with city size. Commuting time rises and recreation areas become less accessible. Expenditures for police protection, welfare, and waste disposal are higher per person in very large cities than in smaller ones.

These costs of larger cities do not necessarily mean that cities should be smaller. The fact that people continue to move to large cities implies that they believe they can gain more there than the costs they incur, though costs imposed on others, such as higher welfare payments or increased congestion and pollution, may make large concentrations inefficient. If cities are too large to be efficient or are poorly organized, the problem can be traced in large part to a failure to charge people for all the costs they impose or to reward them fully for the benefits of their action.

Traffic congestion provides a clear example of problems that arise when costs to users fall short of total social costs. When congestion occurs, every additional car on the streets increases travel costs for all other vehicles. Yet no driver is required to pay for these costs that he imposes on others. Nor is there any compensation for a person who leaves the streets, permitting others to travel faster. A more efficient use of streets would occur if people were to pay in some way for the consequences of their actions. It has been suggested, for example, that people should have to buy special permits to operate cars in congested areas during rush hours, or that a charge for congestion might be collected through parking lots.

The movement of population to metropolitan areas also creates problems for declining rural areas. As population density falls, the range of goods and services offered in an area shrinks. The outmigration of working-age people lowers per capita incomes and makes it more difficult to finance social services. Because of declining travel costs, more and more people who work in outlying areas live in nearby small cities, though the opposite also occurs. As the labor markets in these cities attain a sufficient size, they may also attract industrial employers. Some small cities are already experiencing rapid growth as many business operations and government facilities have been located in such areas.

Last year the President appointed the Commission on Population Growth and the American Future. The Commission is now examining how population growth will affect the quality of life and how all levels of government

can best respond to the demands posed by population growth and its distribution. Its work should help the Nation to make better choices among alternative ways of using some scarce resources.

## SAFEGUARDING THE ENVIRONMENT

As the economy grows, more waste of various types is produced. This does not cause major problems as long as the population is widely dispersed and the environment is not overloaded. As the population is increasingly concentrated in urban areas, however, the assimilative capacity of the environment in these areas tends to be exceeded. It then becomes more and more important that these limited environmental resources be used to the best advantage.

While it might be tempting to say that no one should be allowed to do any polluting, such a ban would require the cessation of virtually all economic activity. Since society places a value both on material goods and on clean air and water, arrangements must be devised that permit the value we place on each to determine our choices. Additional industrial development, increased use of pesticides on farms, and a growing volume of municipal sewage mean dirtier water downstream and fewer opportunities for recreation. On the other hand, stricter rules for pollution control generally mean either higher taxes or higher prices for goods. What we seek, therefore, is a set of rules for use of the environment which balances the advantages of each activity against its costs in other activities forgone. We want to eliminate pollution only when the physical and aesthetic discomfort it creates and its damage to people and things are more costly than the value of the good things—the abundance of industrial or farm products and efficient transportation—whose production has caused the pollution.

One of the ways that the competing claims on environmental resources could be balanced is through the development of “new towns” and resort communities. In these cases, a developer essentially buys title to a whole community’s environment. He then has an economic incentive to avoid excessive damage to that environment. If, for example, he lets a factory buy the right to locate in the community even though it would substantially damage the community’s environment, the value of potential residential property will thereby be lowered. Only when the advantages of industrial activity, such as increased income, outweigh the environmental disadvantages would the developer permit the factory to locate there. The same incentives would operate to limit pollution from such activities as municipal waste disposal.

The concept of unified development does not provide much guidance for solving pollution problems in areas that are already developed. With substantial capital invested in existing industrial facilities, a company that must pay large additional costs for pollution control may find continuing operations economically infeasible. A major change in liability for pollution costs may, in effect, expropriate the capital of some even while it

enhances that of others. Nearby homeowners, on the other hand, may feel that pollution has always been harmful, and that its existence in the past does not justify its continuation.

This kind of dispute is central to the pollution problem and has become increasingly widespread as the various users of air and water seek to assert their claims to the limited environmental resources. A solution requires procedures and rules for the use of clean air and water that permit an orderly settlement of the competing claims on these limited resources, and that take account of the fact that these resources are not inexhaustible. The homeowner, the factory owner, and the farmer cannot simultaneously enjoy unlimited use of air and water. Industry and agriculture must recognize the new sense of urgency and concern about environmental problems. At the same time we must not overlook the fact that people also want more and more of the jobs and products of farms and factories.

### SOCIAL ROLE OF PROPERTY RIGHTS

Problems similar to those arising from pollution have frequently been handled by granting private title to limited resources. Agricultural and forest land were once common property with poorly defined usage rights. As demands on these resources grew, their use by one party inflicted damage on others. The adjudication of conflicting claims to these resources by granting private title to them served the important social purpose of providing an incentive for these resources to be used more efficiently.

Air and water resources are harder to divide into meaningful private parcels than land. If each landowner had title to clean air around his property, a factory in New York that would emit air pollutants might have to deal with 8 million "property owners," making it difficult to operate any factories at all.

Because private property arrangements cannot be applied generally to our air and water resources, environmental problems connected with their use have to be solved within a framework of common property. The procedures and rules that we develop for resources regarded as common property must encourage their efficient use, just as would be true if they were private property.

A set of rules for the efficient use of air and water should not only permit no more fouling of air and water than we wish to tolerate, but it should also ensure that the tolerated degree of pollution occurs for the most productive reasons. The rules should also encourage the use of resources to limit the damage done by the pollution that is allowed. Finally, the rules and procedures should not themselves entail a higher cost of administration and enforcement than the cost of having no rules.

#### *Specific Rules*

As our society has become increasingly aware of the conflicting claims on air and water, specific rules have been developed for the use of these

resources that recognize their limited nature. As early as 1899 a Federal law was passed regulating the disposal of waste in rivers and harbors. However, only with recent legal opinions and legislation has it become clear that the law could be used to reduce pollution, and the President has recently issued an Executive Order to use the law in this way.

Two problems must be faced in setting up rules for use of the environment. First, it must be decided how much pollution, if any, will be tolerated and under what circumstances changes in this amount will be permitted. Toward this end, the Federal Government has established the Environmental Protection Agency. This Agency, together with State and local authorities, develops standards for ambient air and water quality. These standards are statements of environmental quality goals considered desirable for particular areas or for the Nation as a whole. Since past arrangements, which imposed no cost on those who polluted the environment, led to excessive pollution, these air and water quality goals have uniformly sought reduction of pollution. Once such goals are developed, the next problem is to devise a system of rules for attaining them. Particular polluters must be led to change their actions so that, in fact, less pollution is produced. The Federal Government and other authorities have also been active in devising rules to implement attainment of environmental goals.

Foremost among the new rules has been the setting of Government standards applicable to particular pollution sources. Under this system, the Government requires that each source reduce its emissions of pollutants by an amount sufficient to keep the total of all emissions within the environmental quality standard. All sources are ordinarily required to reduce emissions by the same percentage. For example, under recently enacted amendments to the Clean Air Act of 1967, cars of the 1975 model year will have to reduce emissions of carbon monoxide and hydrocarbons by 90 percent from 1970 levels. While such Government standards have been applied most extensively to automobiles, similar standards are now being developed and implemented for other pollution sources.

This system of Government standards provides one mechanism for attaining environmental goals that recognizes the increasing scarcity of environmental resources. If this system is to generate efficient results, the goal must, of course, be appropriate. That is, the control of emissions that is required at each source must produce a high enough quality of air and water so that further improvements is not worth the costs of further control. If Government standards are to achieve the best use of environmental resources, there must also be substantial uniformity of the cost of control among pollution sources. Where these costs differ, the same environmental quality could be attained more cheaply by having the source with low control costs undertake more control than the source with high costs; but this would not occur if uniform standards were applied to all sources. The standards might, of course, be made nonuniform to account for differences in control cost, but only at considerable administrative cost because the

Government agency setting the standards would need detailed knowledge about many different pollution-causing activities. It is also difficult politically to set variable standards. Many, including of course the owner, would think it unfair to penalize a plant with low control costs for its efficiency in pollution control by imposing an especially tough standard on such a plant.

Differences in control cost were perhaps an unimportant problem when attention focused on automobile exhausts. While there are some differences among types of cars in the cost of controlling exhaust emissions, the common technology of the internal combustion engine limited these differences and seemed to justify the application of common standards to all cars. In other cases a pollutant may prove so damaging that a common standard, namely, an outright ban on all discharges, would also be called for even if there are differences in control costs. However, as attention focuses on industrial and agricultural pollutants that are not to be eliminated completely, differences in control cost will prove to be more of a problem. Particular pollutants are emitted from sources with diverse processes, sizes, and ages; and large differences in the cost of control can be expected. For example, sulphur oxides, which are one of the most damaging pollutants of the air, are emitted by electric powerplants, steel mills, nonferrous metal smelters, and home-heating systems. The differences in the size of these sources and the diversity of their processes make it almost certain that a given reduction of sulphur oxides cannot be accomplished at the same cost at each source. It is already known that there are economies of scale in sulphur oxide abatement, so that, for example, a given degree of control could be attained less expensively at one large powerplant than in many home-heating systems.

One way that differences in control costs could be taken into account would be to set "prices" for the use of the air and water. If each potential polluter were faced with a price for each unit of pollutant he discharged, he would have to compare this with the costs of pollution control in his particular circumstance. If control costs were relatively low, he would engage in extensive control to avoid paying the price being charged for polluting. If control costs were high, less control would be undertaken. Since sources with low control costs would carry out more than average control and those with high control costs less than average, a given level of environmental quality could be attained with expenditure of less productive resources than if all sources had to meet a common standard. At the same time, discovery of new techniques to control pollution would be encouraged, because every reduction in pollution would lower the payments for the right to emit pollutants. Of course, a price system, like a system of standards must be employed in a way that is consistent with environmental goals. The right to use air and water must be priced high enough so that the abatement encouraged improves the quality of the environment enough to justify the abatement expenses, while further improvement would not be worth additional expenditures.

There are three methods by which prices may be established for use of air and water: subsidies for control of pollution, charges for emissions of pollution (also called effluent fees), and sales of transferable environmental usage rights.

In the case of pollution abatement subsidies, the "price" paid by the polluter is the subsidy he forgoes. The more he fouls the air and water, the less he receives in subsidies. This approach can attain the efficiency inherent in a price system, but it entails substantial administrative as well as fiscal costs. In order to keep its subsidy payments down, the Government agency will have to incur the expense of ascertaining the level of pollution that would have occurred without any pollution control. As new products and processes are developed, this administrative task would grow more expensive, because in their case no record of past pollution would be available.

Alternatively charges could be levied on pollution. A charge on emissions of harmful substances would limit the amount of emissions indirectly. The higher the charge, the more a polluter would be willing to spend to avoid contaminating the environment (and thereby avoiding the charge). Another alternative would be an environmental usage certificate system. It would limit the amount of pollutants directly, but allow the price for pollution to be set indirectly. Under this system, as under a system of pollution standards, a Government agency would set a specific limit on the total amount of pollutants that could be emitted. It would then issue certificates which would each give the holder the right to emit some part of the total amount. Such certificates could be sold by the Government agency at auction and could be resold by owners. The Government auction and private resale market would thus establish a price on use of the environment. The more pollution a user engaged in, the more certificates he would have to buy. Groups especially concerned about the environment, such as conservation groups, would have a direct method of affecting the environment. They could themselves buy and hold some of the certificates, thus directly reducing the amount of emissions permitted and increasing the cost of pollution.

In general, any choice between emission charges and usage certificates should depend on which is easier to determine: the right price for pollution or the right quantity. If the amount of damage done by a pollutant can be measured easily and it appears that each unit of pollutant does roughly the same damage, an emission charge would be called for. If the damage per unit of pollutant may rise substantially with higher total emissions, a usage certificate system would be in order. Both the charge and the certificate approach would, like a system of standards, reduce the total amount of air and water pollution. However, by introducing a price mechanism, charges or certificates would allow the limited amount of tolerable pollution to be allocated efficiently when differences in the cost of control are present. Such efficiency would reduce the resource cost of pollution control and would

therefore enable us to afford cleaner air and water than we could if common standards were imposed in the face of differences in control costs.

Pollution charges and certificates have not yet been widely used in this country, though some municipalities have levied charges on industrial sewage discharge. A system of water pollution charges has been used in the Ruhr basin for some time, and new proposals for pollution charges have been advanced in this country. This Administration has already proposed a tax on lead additives in gasoline which reduce the effectiveness of certain devices used to control auto exhaust emissions. This tax should encourage drivers to switch to unleaded or low-lead gasoline, refiners to produce such gasoline, and carmakers to equip their cars with the low-cost catalytic filters which work only with unleaded gasoline.

There is currently under study a charge on atmospheric emissions of sulphur oxides from combustion of fossil fuels. This charge would be sufficiently high to encourage substantial control of sulphur oxide emissions, and the consequent reduction of damage to health and property should substantially exceed the control costs.

A charge on sulphur oxide emissions provides a good illustration of one of the important benefits of a price system—namely, the information produced by prices about the most efficient way of handling pollution problems. Sulphur oxide emissions are now regulated by Government standards. The State of Washington, for instance, has proposed a standard whereby copper smelters there would be required to control 90 percent of the sulphur content of copper ore entering smelters. This, according to a study done for the State, could be accomplished at a cost equal to about 2 cents per pound of copper (about 4 percent of the price). The copper smelters there, however, claim that such a level of control is technologically impossible to attain, and that imposition of the standard would force the smelters to close. Such disputes over Government standards are not surprising where there is uncertainty over control costs. Advocates of the standard will tend to minimize its costs so that the chances of having the standard adopted are increased, while those facing the burden of complying with the standard have an incentive to overstate the costs so that chances are improved of having the standard, and hence their costs, lowered. In the absence of accurate independent information on the costs of control, such disputes are difficult to resolve.

Much of the gap in information could be eliminated quickly if an emission charge were instituted. If, for example, a charge were applied to smelters equivalent to 3 cents per pound of copper when emissions were not controlled, then with 90-percent control the smelter would save about 2.7 cents in charges per pound of copper produced. If this 90-percent control could indeed be achieved at a cost of 2 cents per pound, the smelter would not hesitate to incur such costs and thus avoid the larger charge. If, on the other hand, 90-percent control were “technologically impossible” or cost much more than 2.7 cents per pound, the smelter would engage in less complete control. Perhaps 80-percent control could be achieved more

cheaply than the 2.4 cents in payments which this control would save. However, the company would still have an incentive to find new control methods that might be less costly than its remaining tax burden. Not only would the factual dispute be settled by this charge but incentives would be created for an efficient response to an environmental problem.

While transferable environmental usage certificates have the same kind of efficiency advantages as emission charges, they have not yet been applied to the solution of environmental problems. One area where their use may merit attention is the control of offshore dumping of waste, which constitutes a growing hazard to the environment. It is feared that damage, especially to food sources, may escalate sharply unless steps are taken to limit the waste dumped into the ocean. At the same time, the cost of alternative means of waste disposal differs among the many current users of the ocean. Ocean dumping could be limited and individual differences in the cost of control of dumping taken into account under a certificate system. This would require that anyone who wished to dump wastes in the ocean have a Government license to do so. The license would specify the amount and type of material that could be dumped at a particular ocean site, and the number of such licenses would be limited to permit no more dumping activity than is considered safe. These licenses could be auctioned off by the Government, and sold later by a purchaser who no longer required them.

The Administration has proposed legislation under which licenses will be required for ocean dumping. A possibility worth considering is to make such licenses transferable. If this were done, prospective ocean dumpers would either have to pay the going price for licenses or find a cheaper way of disposing of their waste products. Those who were able to find such alternatives would not buy the licenses; those for whom alternatives were very costly would purchase them. The Government's prime concern should, of course, be limited to the total amount and kind of dumping, not who is doing it.

As choices are made between applying Government standards and instituting prices, the grounds on which the choice is made must be kept clear. Prices for pollution have, for example, been regarded by some as a form of evasion of standards, as a "license to pollute." Actually every system of rules for use of the environment, other than outright and total prohibition of certain uses, involves granting someone the right or "license" for some polluting. The amount of pollution that results does not depend on which system of rules is adopted, but on how each is administered.

It is sometimes said that administration of emission charges is unduly complicated, since they must be varied continually as pollution damages change, and they require close measurement of the pollution against which the charge is to be made. When damage estimates can change frequently, administration of a system of charges can become costly, and a certificate or standard system would save this cost. However, the cost of measuring pollution is not unique to a charge or certificate system. It would be just as

great if standards are to be enforced. If measurement of pollution is too expensive to permit an effective system of standards, charges, or licenses, we face a choice between outright prohibition of the pollution, tolerating the present level, or requiring adoption of some conventional control procedure.

### *Problems in the Application of Rules*

As rules for the use of common property are developed, whether these are embodied in Government standards, emission charges, or usage certificates, several problems will have to be resolved. We shall, for example, have to decide at what level of Government the rules will be made. Since these rules require that the gains and losses entailed by different levels of environmental quality be weighed, the Government agency making the rules must be responsive to those who bear the gains and losses. This is especially important because part of the damage from pollution cannot be measured directly but depends on such things as the aesthetic preferences of those affected. As a practical matter, much of the damage from pollution will be "measured" by political pressures from those damaged. Many, though not all, pollution problems are local in character, and therefore determination of the appropriate level of environmental quality in these cases is likely to be more accurate if it is done locally rather than by the Federal Government.

Where the environmental effects of a particular activity are in fact nationwide, as is true when poisons enter the food chain in a river and eventually damage fish caught in a distant waterway, the Federal Government must ensure that certain minimum standards are set. Some degree of uniformity may also be desirable where the cost of altering a given production process or product to meet differing local standards is great. It is not clear, however, that the Federal role should extend beyond the setting of such minimum standards where most benefits and costs of pollution are borne locally. In such cases, a pollution source generates income as well as pollution damage in the community where it is located. The seriousness of the damage will depend in part on such local factors as topography, wind patterns, and population density; and the right amount of control will depend on how much income would be lost to achieve abatement. It would not be sensible to impose the same abatement costs on a factory or farm located in a lightly populated area or where the environment has substantial assimilative capacity as on one in an area without these favorable characteristics.

Where environmental damage crosses local political boundaries but is not national in scope, the appropriate Federal role might be to foster the creation of interstate agencies, such as regional air quality boards and river basin authorities, which would be responsible to residents of areas affected by common environmental problems. The recent amendments to the Clean Air Act of 1967 will permit interstate air quality agencies to set regional

air quality standards, which will have to meet minimum Federal standards. It is important, however, that these minimum standards permit these agencies to adopt standards appropriate to local circumstances.

New rules for use of the environment are bound to affect competitive relationships within and among industries, localities, and nations. As industries are forced to bear the costs of using the environment, those who have high costs will lose part of their market to those with lower costs of using the environment. Inevitably, there will be pressures for Government action to prevent this reallocation of production. It should be realized, however, that such reallocation is necessary if environmental resources are to be used efficiently. Government interference with this process should therefore be limited to mitigating the transitional effects.

The same considerations apply internationally as well as domestically. Our high level of material wealth has caused us to place a higher value on clean air and water than they are assigned in countries which have lower incomes or where clean air and water may still be abundant. As this value becomes reflected in the costs imposed on our producers, those for whom the costs of pollution control are high will find it harder to compete with producers in countries where clean air and water are less valuable or where pollution is lower. The resulting reallocation of production among nations should benefit all nations. We will tend to concentrate on the production of goods which make small added demands on our valuable environmental resources, while other countries will produce goods which increase the use of their relatively abundant environmental resources or whose lower incomes make growing industrialization more urgent than extensive control of damage to their environment. International agreements to restrict this reallocation would, however, be desirable when pollutants emitted in one country damage residents of another.

## TRANSPORTATION

Even as Government creates new rules and institutions to promote an efficient use of resources, it must constantly examine the utility of its existing institutions. The transportation industry is a case where special care must be taken to assure that Government policies do not promote inefficiency by permitting private costs to diverge unnecessarily from social costs.

The transportation industry is important both to the Nation's rate of overall growth and to the way that this economic activity is distributed geographically. Much of this industry is subject to Federal and State regulation instituted under conditions that no longer exist. Such regulation today may be one factor that interferes with an efficient use of resources in transportation, and it appears that regulatory patterns may have to be reexamined if the industry is to contribute its full potential to the Nation's welfare. While the focus here will be on regulation, this is not the only Government policy that creates a divergence between private and social costs. Inland waterways, for example, are developed and maintained out

of general tax funds. There is no direct charge levied on the barge operators who use them. Many barge rates consequently fall short of the social cost of such traffic and lead to uneconomic diversion of traffic to barges. In addition some States have laws that inhibit the efficient utilization of labor on railroads.

## SURFACE FREIGHT TRANSPORTATION

When the Interstate Commerce Commission (ICC) was established in 1887, the railroads had a near monopoly of freight transportation. Public demand for control of this monopoly was one of the factors leading to the creation of the Commission. Another source of pressure for railroad regulation, however, may also have played a role in the development of ICC regulation. While railroads as a group had a near monopoly of freight traffic, there were often several railroads along the same traffic routes. The absence of antitrust laws made it attractive for rival railroads to collude among themselves in setting rates. As is frequently the case, such private cartels tended to break down when some members secretly reduced rates to lure business away from others. The railroads themselves supported the establishment of a Government agency that would end the instability of these private rate cartels. The powers given to the ICC in 1887 and subsequently may therefore not have been designed primarily to promote competition among railroads.

The ICC now regulates all rail traffic, 39 percent of truck traffic, and 10 percent of inland water traffic. The regulation is comprehensive, covering rates, types of service offered, and the ability of firms to enter and leave the industry or particular markets. While groups outside the transportation industry do influence the exercise of the Commission's powers, the main thrust of regulation has been to ameliorate the effects of competition among the carriers and to mediate competitive disputes among them.

Early attempts by railroads to eliminate rate competition under regulation were not completely successful. Early in the 20th century, therefore, and with the support of the railroads, the ICC was given power to approve minimum rates—rates below which a particular railroad could not go. The railroads used this power to institutionalize the value-of-service rate structure whereby goods of higher value were charged the highest freight rates even if it cost no more to carry them. Private costs to shippers were thus allowed to diverge from the social costs of transportation. This rate structure was most profitable to the railroads at the time, but its institutionalization under minimum rate regulation eventually became a source of their present problems.

The value-of-service rate structure helped expose the rails to competition from trucks. Because rates did not correspond to costs there were substantial differences in the profitability of carrying different goods. New trucking companies saw the prospect of capturing some of the profitable high-rate traffic from the railroads. With the spread of the highway network, the then

unregulated truckers undercut rates on the high-rate traffic and diverted some of it from the rails.

This reduced the profitability of the railroads and they argued for suppression of the truck competition. In 1935, ICC regulation was extended to cover much of intercity trucking (and barge traffic in 1940). In order to resolve the competitive dispute between rails and trucks, the existing rate competition was suppressed. The value-of-service rate structure was carried over from rails to trucks. At the same time, minimum rate regulation was applied to all common carrier motor carriers, so that existing rate competition between trucking firms was reduced. All carriers were left to compete on nonprice grounds, such as speed and the quality and frequency of service.

As the highway network grew, however, trucks continued to attract high-valued freight from the rails. Much of this was manufactured goods, where superior service offered by trucks frequently gave them an advantage. Thus the railroads' share of the freight market continued to fall. From 1939 to 1969, their share of intercity freight traffic fell from 62 to 41 percent, while the truckers' share rose from 10 to 21 percent. At the same time, the railroads became more heavily dependent on low-valued, low-rate traffic.

### *Inefficiencies Due to Regulation*

This shift of traffic from railroads to trucks did not always come about because trucking costs were below those of the rails. Part of it occurred because the value-of-service rate structure was unrelated to the costs of transportation. Even on long-haul traffic, where rail costs are much below truck costs, a shipper would frequently choose to ship by truck if trucks offered better service. By preventing carriers from fully reflecting cost advantages in their rates, regulation maintained high-cost transportation. In some rate cases where a low-cost carrier sought to exercise its advantage by offering a lower rate, the ICC prevented this so that the high-cost carrier would not be damaged financially, even though the public interest would have been better served by lower rates. More recently there has been some increase in competition between modes of transportation, but the ability of carriers to set minimum rates in concert continues to suppress competition among railroads and among motor carriers.

The application of the value-of-service rate structure to all modes also contributed to the problems of rural depopulation and metropolitan congestion which were mentioned earlier. Under the value-of-service rate structure, rates on finished goods tend to be higher than those on raw materials. These higher rates on finished goods give manufacturers an incentive to locate close to or in the metropolitan areas where their major consumer markets are found, rather than in the areas where raw materials are produced.

The preservation of value-of-service rates also induces excessive reliance on unregulated private or contract carriage. Wherever regulated rates are held above costs, some shippers have an incentive to buy or rent their own vehicles, usually trucks. This may save money for the shipper even if the cost

of operating these vehicles is above the cost to the regulated carriers, as it might be because under present regulations these trucks must often return empty to the shipper's location. These added costs represent wasted economic resources.

Transport regulation extends beyond rates. Under existing legislation, a firm that seeks to enter the industry or a particular market must first obtain a certificate from the ICC. This has protected existing carriers from competition because new carriers have not been permitted to enter freely even if they could meet safety and reliability standards. This restriction of entry has inhibited the formation of new trucking firms, though trucking is the most rapidly growing form of regulated surface freight transportation. Further, a certificate to enter a market often contains numerous service restrictions designed to protect established carriers. There are, for example, restrictions on the commodities which may be carried and the number of towns between two points which may be served. In the absence of these restrictions, the same service could be performed equally well by fewer trucks.

This restriction of competition has had in the long run an increasingly adverse effect on many of the intended beneficiaries, especially the railroads. With rate competition among carriers minimized, carriers sometimes strive to gain customers by having the most equipment available and offering the most frequent service. This is one reason why the transportation industry as a whole has had more capacity than the total traffic requires; another reason is to be found in the obstacles to abandonment of unprofitable service. The costs of carrying this excess capacity have in turn tended to dissipate some of the financial gains to carriers that resulted from suppression of rate competition.

### *An Alternative to Regulation*

The development of the transportation industry under regulation suggests that the public as well as large sections of the industry would be well served by relying more on the forces of competition. The rationale for regulation found in the railroads' monopoly position in the 19th century has become increasingly obsolete. Transportation could be a viably competitive industry today since most shippers already have a choice among modes, and with fewer entry restrictions they would have more choice among carriers. By frustrating this potential for competition, regulation appears to have promoted high freight rates and numerous inefficiencies, and in the long run to have weakened firms financially. This raises the question of whether the introduction of competition in transportation may require fundamental institutional reform. Legislative attempts to promote competition under the present regulatory system have had only limited success. This is illustrated by experience with the Transportation Act of 1958, which sought to increase competition among trucks, rails, and barges within the present regulatory framework. While such intermodal competition has in-

creased somewhat, it has often not been permitted when the financial viability of some carrier was threatened.

If it appears that the full benefits of competition can not be attained within the framework of the existing regulatory process, substantial deregulation of surface freight transportation may have to be considered. This approach would involve the removal of regulatory obstacles to competition so that free market forces would ultimately be allowed to establish prices and allocate resources in the same way that they do in other industries. In view of the magnitude of the changes that would be brought about by such deregulation, it would probably be advisable to introduce competition gradually. Carriers, for example, might initially be given freedom to set rates within a narrow band above and below the present regulated levels, and this band could widen over time. Freedom to enter markets could be initiated by removal of the service restrictions on existing ICC truck certificates and of the restrictions on intermodal ownership by existing carriers. At some future point, restrictions on entry by new firms could be lifted. Restrictions against carriers' leaving unprofitable markets could also be lessened gradually by, for example, permitting them to abandon without ICC approval a fixed percentage of service each year for several years. As regulatory restraints on competition in transportation are removed, it would appear appropriate that transportation firms become subject to the antitrust laws, from which they are now substantially exempt. In particular, it would be necessary to guard against predatory pricing, intended to establish a monopoly, and against monopolistic pricing, of which there are instances even under present arrangements.

Deregulation would, of course, produce profound changes extending beyond the transportation industry itself. With restrictions on competition removed, transport rates would be likely to fall; and since high-cost carriers would no longer be protected from competition the rate structure would change. Rates based on the costs of efficient carriers would tend to replace the current value-of-service rate structure. Under a cost-based rate structure, commodity distinctions would tend to disappear, and rates would be based primarily on such factors as the size and weight of shipment.

Deregulation and a shift to cost-based rates would also lead to a better use of transport resources. For many long-haul shipments, rail costs are below truck costs, while the reverse is true for short-haul shipments. Once carriers are permitted to compete and take advantage of these cost differences, some long-haul shipments would shift from trucks to the rails and some short-haul shipments would shift the other way. More generally, since traffic would flow to carriers with the lowest costs, the total resource cost of transportation would be reduced.

Many shipments that now move by rail over branch lines to main lines would instead originate by truck, transferring to the rails at the main line. To reduce the costs of such transfer, many of these multimodal freight shipments would be sealed in containers which could be interchanged among

modes. In this way, both those shippers located close to the main line and those farther away could take advantage of the flexibility and short-haul cost advantage of trucks as well as the long-haul cost advantage of rails. At the same time, much of the cost to the rails of maintaining excess track and underutilized equipment on these lines would be removed.

Many shippers in small towns oppose railroad abandonments of branch lines today, because they fear that under present regulation lower-cost truck service would not be substituted. However, if carriers were free to compete on rates as well as to enter and leave markets as they saw fit, the abandonment of high-cost rail branch lines would create a new market for trucks. Competition among trucks would frequently result in lower freight rates for branch-line shippers than they now face. Such shippers would also greatly benefit by the savings from the multimodal long-haul shipments that increased competition in transportation would stimulate. Regulation is sometimes justified as protecting shippers in nonmetropolitan areas from loss of service. It is argued that without the service requirements imposed by regulation not only railroads but trucks as well would abandon nonmetropolitan areas for the more populous markets. It appears, on the contrary, that regulation prevents many nonmetropolitan shippers from realizing the benefits of competition.

Evidence that nonmetropolitan shippers can and do benefit from a competitively organized transportation industry is provided by experience in agriculture. In response to farm pressures, truckers of agricultural products were exempted from the 1935 extension of ICC regulation to trucking. In the 1950's fresh-dressed and frozen poultry and frozen fruits and vegetables were added to the list of exempt agricultural commodities. The Department of Agriculture found that this resulted in rate decreases averaging about 30 percent for poultry and 20 percent for frozen fruits and vegetables. At the same time shippers reported that the quality of service offered by the nonregulated truckers was generally superior to that previously offered by the regulated truckers. This experience indicates that residents in nonmetropolitan areas may receive substantial benefits from a fully competitive transportation industry. In addition, with cost-based competitive rates, some of the manufacturing activity now carried on in the large population centers, because of the high finished-goods rates in the current value-of-service rate structure, would then shift to smaller towns and generate increased incomes there.

In evaluating the distribution of the gains from competition in transportation the broad national gains should not be overlooked. Residents of all areas are affected by transport rates both as producers and consumers, so that the lower transportation rates brought about by increased competition would benefit residents in all parts of the Nation. This, in the final analysis, is why a deregulated transportation industry would better serve the public interest.

Indeed, recent developments in the railroad industry suggest that deregulation of transportation may have to be considered as a matter of urgent

national priority. Several railroads, including the Nation's largest, are in reorganization; and the Congress has approved Federal Government guarantees for \$125 million in loans to these railroads. These significant developments, however, are only symptoms of more far-reaching problems that appear to be incapable of permanent solution without regulatory reform. The over-investment and misallocation of capital in railroad facilities, and the regulatory restriction on the ability of railroads to set rates that would capture profitable long-haul traffic where they are most efficient, have led to a steady decline in the railroads' own rate of return on investment from an average of 3.7 percent in 1950-59 to 2.8 percent in 1960-69. As the financial condition of the railroads has deteriorated, investment of funds in the railroad business has also become more risky. Today the average rate of return on the railroads' investment, with its increased risk, is less than half that on risk-free Government bonds.

In the absence of regulatory reform it may not be possible for the railroad industry to attract sufficient private capital to prevent further deterioration of service in the years ahead. The Federal Government would then become increasingly involved in the preservation of freight service, as has already happened in passenger service.

#### **RAIL PASSENGER SERVICE**

Rail passenger traffic has declined steadily in recent years, and now accounts for only 8 percent of intercity passenger movements by public carriers. Railroads have long been seeking to abandon unprofitable trains, but this was difficult under existing rules. The Railroad Passenger Act of 1970 permits a railroad to discontinue all its intercity passenger service on May 1, 1971, provided that it invests in the newly-created National Rail Passenger Corporation. Most of the capital for the Corporation will come initially from a Federal Government subsidy and guaranteed loans, and a majority of its Board of Directors is to be appointed by the President. The Corporation must raise any additional capital without Federal assistance. It will at the outset eliminate many of the passenger trains which are now unprofitable, and operate an integrated system of passenger trains serving all regions of the country that, it is hoped, will ultimately be profitable.

#### **AIR TRANSPORTATION**

Like surface transportation, the air transportation industry is subject to Government regulation which has restricted price competition and appears to have created some inefficiency. This regulation was instituted at the request of the carriers in 1938. Entry into the industry or into a particular market almost always requires a certificate from the Civil Aeronautics Board (CAB), and carriers may not charge rates below those approved by that agency.

This regulation has probably resulted in rates that in many cases are higher than they would otherwise be. In the segments of the industry where

entry has sometimes been permitted—namely, nonscheduled, commuter, and air taxi service—new firms have entered quickly. Some indication of the degree to which regulation has raised rates is provided by the air transportation experience in California. Airlines operating wholly within a State are exempt from CAB regulation. Until recently, California permitted free entry into intrastate markets and did not regulate rates. Competition from intrastate airlines has resulted in fare levels per-mile within California that are approximately 40 percent below those for comparable services in the rest of the Nation. As a result, air traffic between Los Angeles and San Francisco far exceeds that between any other two cities in the world.

Nonscheduled carriers provide further evidence of the benefits of competition. In the late 1940's, a few carriers were permitted to enter the market in order to provide unscheduled service as a supplement to scheduled service. The nonscheduled entrants took an increasing share of the market by undercutting the rates of established carriers in longer-distance markets where rates most exceeded costs. The scheduled carriers responded by promoting low-cost coach service. The regulatory authorities also took action to curb nonscheduled lines. While the public is thus denied the benefits of extensive domestic nonscheduled competition today, the rapid growth of coach service is, in part, an important legacy of the earlier competition.

In 1970, many airlines experienced excess capacity and low profits. This partly reflected the absence of normal traffic growth. From 1960 to 1969, domestic air passenger miles increased at the rate of 12 percent per year. In 1970 there was virtually no growth, while many airlines were taking on another generation of aircraft. In that sense the problems of the airlines are similar to those a decade earlier when they were shifting to jets, while traffic growth decreased and for a time reported earnings were also down sharply.

There is also, however, a more fundamental problem. As is true in surface transportation, the substitution of service competition for rate competition tends to result in excess capacity. Fares higher than a more openly competitive market would establish have not, therefore, led to correspondingly high rates of return. Through the inducement to excess capacity, overinvestment in facilities and planes occurred. Costs were thereby increased, and the financial performance of the companies, even with sheltered fares, has recently been unsatisfactory. Faced with some excess capacity, airlines have asked the CAB to approve intercarrier agreements to reduce flight frequencies in selected markets. Such a remedy tends to treat the symptoms of the problem without removing the cause. The original cause of the excess capacity was regulatory restriction of price competition. If price competition had not been inhibited, the incentive for airlines to provide excess capacity would have been reduced.

The resumption of a more vigorously expanding economy will ameliorate part of this problem by increasing air traffic. It must be remembered, however, that these problems will be recurrent if prices are held substantially above what they would be in a more openly competitive market. Para-

doxically, the earnings performance of the airlines themselves is apt to be adversely affected if this basic principle is persistently ignored.

## NATURAL RESOURCES

The utilization of natural resources normally proceeds from lower-cost to higher-cost sources. As the best sources are depleted, new supplies can be obtained only by exploiting those that involve lower grades and higher costs. Copper is an example. The average ton of copper ore mined in the United States in 1911 contained 1.82 percent copper. By the late 1960's the copper content of ore had dropped to six-tenths of 1 percent, and some new mines now produce ore with less than five-tenths of 1 percent of copper. Technological improvements have counteracted this tendency toward higher costs of production. The number of man-hours of direct labor required to produce a ton of copper ore has declined from 4 hours in the 1920's to one-quarter of an hour in the 1960's. The net effect of these tendencies is that the price of copper in peacetime has moved from a range of 10 to 20 cents in the earlier part of this century to between 30 and 60 cents per pound in recent years, or roughly in line with the general price level.

Not all natural resources have increased in price over the years. Aluminum prices, after bottoming out in the 1940's, are now at about the same level as in the 1920's. As a result of these relative price changes aluminum has replaced copper in many applications. In spite of technological advance and substitution there nevertheless remains a concern about the ability of this Nation to continue producing a high proportion of the industrial raw materials it consumes. Accordingly, Congress has established a National Commission on Materials Policy to estimate the supply-demand situation that will be confronting us toward the end of this century and to recommend appropriate policies.

## ENERGY

Sharp price increases in two major energy products, combined with concern about the extent of their supply, have focused particular attention on the Nation's energy resources. In late 1970 the price of heavy fuel oil, which is used by electric utilities, industrial plants, and other large institutions, was almost twice as high as a year before in some markets. Bituminous coal, used primarily by electric utilities, was also priced substantially higher in the spot market than a year before. Natural gas supplies were not available to meet desired consumption at prevailing prices, and therefore the demand for substitute fuels increased. Nevertheless these recent price increases and shortages are not symptoms of a growing scarcity of energy resources. They are the result of unanticipated developments that the energy industry has been unable to offset completely in a short time-span, in particular a stronger demand for energy than was expected from past experience. Programs to reduce air pollution by prohibiting high-sulphur fuels contributed to the problem.

Coinciding with the acceleration of demand, there have been several disappointments on the supply side. The generation of electric power, particularly in atomic plants, has not met the expectations of electric utilities because of construction delays, licensing problems, and environmental concerns. In part, these difficulties reflect the assumption a few years ago that atomic power would become profitable, an assumption that slowed coal mine development. Heavy fuel oil supplies have been limited by a world tanker capacity that has not yet adjusted to the longer delivery runs required from the Mideast after the Trans-Arabia Pipeline was severed. This limitation on supply has resulted in higher prices for heavy fuel oil. Since heavy fuel oil can be imported to the east coast without quotas, that area has come to rely on these normally lower-priced foreign sources for a large share of its supply, and domestic refiners have had no incentive to construct refineries with much capacity for these heavy products.

These short-run problems are being resolved by Federal action and by adjustments in the market. Higher domestic prices of heavy fuel oil have attracted more supplies from abroad; these higher prices have also induced domestic refiners to increase their yields of heavy fuel oil. Actions by the Interstate Commerce Commission to increase the efficiency of utilization of hopper cars, including a doubling of the demurrage charge, have helped to correct another bottleneck by adding about 3 percent to the hopper car fleet's delivery capability. As a result, the previously low level of coal stocks at electric utilities has been raised to the normal range, and spot coal prices have turned downward.

In anticipation of local supply problems in the winter of 1971 a Joint Board on Fuel Supply and Fuel Transport, chaired by the Director of the Office of Emergency Preparedness, was created last September. Actions by this Board and its New England field board have resulted in increased supplies in that area. The field board, in cooperation with local and State authorities and industry, has resolved more than 50 complaints in the area. Barring extraordinary events—such as a rail strike, or extremely severe weather in the remaining winter months, or disturbances of international oil supplies—fuel consumption in the United States should not be significantly curtailed in the winter of 1971.

With tankers being built as rapidly as world shipyard capacity permits and with improvement in the efficiency of our rail system, the transportation problem should begin to abate. Although transportation bottlenecks can arise from time to time, the principal long-run energy problem in the future is to increase the amount of energy produced while avoiding a substantial increase in its price.

Domestic energy consumption between now and the year 2000 is likely to exceed all of the energy consumed by this Nation in its history. This enormous future demand raises questions about the supply of energy fuels, their price, and the role that different sources of energy will play.

Once current technical and environmental problems are resolved, nuclear energy promises to contribute significantly to the electric power supply. While oil and natural gas supplies from conventional sources in the United States appear to be small relative to current consumption, this is not true of coal. However, technology that will inexpensively reduce the air pollution now produced by coal burning may have to be developed if the cost of using coal is not to increase. Coal can also be liquefied and refined to substitute directly for gasoline or fuel oil. It can also be gasified to substitute for natural gas. Liquefaction and gasification of coal are both approaching the margin of economic feasibility. The production of oil from oil shale is another marginal economic proposition, and it is expected that with production experience costs will be reduced further. In the States of Colorado, Utah, and Wyoming there are enormous reserves of oil shale. These sources of energy are not now being exploited because there are less costly ways to supply energy, another illustration of the principle that least-cost resources will be used before those that are more costly.

Even the potential supply of some traditional sources of energy has increased since World War II. An enormous production potential in the Middle East has been hanging over the world petroleum market, production costs there being less than one-tenth the selling price for typical Middle Eastern crudes. Close cooperation among foreign producing countries has thus far enabled them to prevent world prices from falling sharply. Attempts at price increases will, of course, be made, but discoveries of new sources throughout the world will tend to exert countervailing pressure. The increasing number of supertankers should reduce transportation costs, and thereby help to keep delivered prices down.

Within the United States there has been persistent overcapacity in crude oil production. Excess capacity in Texas and Louisiana has typically been over 30 percent in the last decade and has at times exceeded 40 percent of total production capacity. The State prorationing agencies have held back domestic production, and this, together with strict national security limitations on imports, has maintained relatively high U.S. oil prices.

It is important to distinguish between two main functions of State agencies that regulate crude oil production. The first function arises because crude oil is mobile underground and will flow to where it is being drained. If a pool of oil is not produced as one unit, owners of individual portions of the pool have an incentive to lift oil to the surface in their segment rapidly; whatever oil they do not remove themselves will be left for others or may become irrecoverable. Since excessively high rates of production tend to result in lower ultimate recovery, competitive production from a single pool will often be wasteful. By prorating production to individual producers in a pool, State prorationing agencies can enforce the same rate of production that would occur if the pool were being operated economically by a single operator. This is the conservation function of State prorationing agencies.

In some cases, however, these efforts go beyond conservation and limit total production to the market demand for crude oil in the State at prevailing prices. Since the quantity of oil demanded is related to its price, limiting production to the quantity demanded at a particular price tends to support that price. This market demand prorationing, as opposed to conservation prorationing, has often kept production in the United States below efficient capacity. On the other hand, the idle capacity has given us a standby supply of oil that has sometimes been useful in times of international stress.

In the second half of 1970 domestic production was close to capacity. One reason is that imports changed little, and another is that production capacity itself has not grown as rapidly as domestic demand. In part, capacity may have shown little growth because of the negative incentive effects of market demand prorationing. The value of an oil discovery depends not only on the price of oil but also on the rate at which production is permitted. If production is restricted to low levels, the potential value of a new oilfield is reduced. The effect of market demand prorationing on the development of new capacity is therefore similar to that of a lower price.

The action announced by the President in December 1970 to remove market demand restrictions on Federal offshore leases not only promises increased production from existing offshore wells but will also encourage exploration for and development of new productive capacity on Federal offshore land. Supporting this view is the fact that bonus bids received by the Federal Government on the December 15, 1970, Gulf of Mexico sale of leases exceeded earlier expectations and resulted in more revenue than any previous Federal sale.

There appears to be a shortage of one major energy fuel, natural gas; that is, its production is clearly falling short of desired consumption at current prices. Current prices for interstate sales have been kept low by the Federal Power Commission, which sets these prices under law. Not only have prices been too low for desired consumption to be met, but they appear also to have retarded development of new gas supplies. The only satisfactory solution of this problem is to allow the price, at least of new gas not previously committed, to approach the market-clearing level.

It is important to recognize that increased gas supplies, even at higher prices, would offer direct benefits to the consumer. Some users would switch to natural gas if it were available because the price of gas in terms of heating value, though higher than before, would still be lower than the price of the fuel they had been using. Industrial users would switch because gas contains little sulphur and would be the cheapest way for them to meet air quality standards. The added competition of these new supplies would also tend to reduce prices for consumers of other fuels. If the price of natural gas on old commitments remained under control, consumers would be protected from unnecessary price increases on current supplies.

## TIMBER RESOURCES

Timber is another natural resource whose supply is affected by Government policies. In fact, there are few areas where Government has as much direct control over the supply of natural resources as it has in timber. About 65 percent of the more than 2 trillion board feet of our Nation's inventory of softwood sawtimber is on public lands. More than half of the total is on land owned by the Federal Government. These softwoods, principally evergreens, provide the major wood materials used by the building industry, and as the economy has grown so also has the demand for softwood.

With only 16 percent of the inventory, the private forest industry has accounted for almost a third of the softwood sawtimber harvests. Public lands have provided some 40 percent, the remainder coming from the private holdings of farmers and other small private landowners. In times of increased demand it is to these private holdings that the forest industry has commonly turned to augment supply. As a result of past cuttings, however, this source of supply has been reduced, and time will be required to regrow much of the timber on private lands.

This decline in supply occurs at the same time that the Nation's demand for softwood lumber products is expected to grow substantially. If the Nation's housing demand for this decade is to be met, the annual consumption of softwood lumber and plywood by the housing industry may have to increase by as much as 75 percent over current levels. And as the economy resumes a course of vigorous expansion, nonhousing demand for softwood will increase as well. It has been estimated that for the economy as a whole the annual demand for softwood sawtimber, assuming that prices remain at their 1962-67 levels, could reach 70 billion board feet by 1978, some 40 percent above the level of consumption in 1969. Accordingly, the President has directed the Secretary of Agriculture to formulate plans for increasing timber yields on Federal lands.

An increase in the timber harvest through intensified management promises broad public benefits. Not only will consumers of wood products, particularly purchasers of housing, benefit through lower prices, but this can be achieved while keeping our timber resources intact. Unlike other natural resources, forests are renewable, so increased cuttings need not imply a permanent reduction in the annual lumber supply. Indeed, it appears that, with proper planning and management, the permanent yield of forest lands can be increased.

Growing concern for our environment necessitates that increases in timber supply be achieved in a manner which is consistent with the preservation of natural surroundings. In the past, cutting has frequently been synonymous with denuding the land, but this is by no means inevitable. By partial cutting and careful selection the negative aesthetic and environmental impact of harvesting can often be kept to a minimum. Indeed, increased harvests can offer benefits beyond the increased supply of timber, for intensified forest management can also result in a natural increase in wildlife and improved opportunities for recreation.

## HEALTH CARE

Expenditures for health care have grown rapidly as families' incomes have increased and as Government has assumed greater responsibility for the medical bills of the aged and many of the poor. Total private and public health expenditures grew from \$42.3 billion in fiscal year 1966, the year before the introduction of Medicare and Medicaid, to \$67.2 billion in 1970, or at a rate of 12 percent per year. (Health expenditures are defined more broadly here than in Chapter 3.) Hospital and nursing home expenditures have grown most rapidly, with expenditures for physicians' services and other types of expenditures rising somewhat more slowly.

Price increases account for a considerable portion of the change in expenditures. The medical care component of the consumer price index increased at an annual rate of 6.4 percent between fiscal years 1966 and 1970. The price of daily service charges in hospitals rose at the rate of 14.4 percent per year, while physicians' fees rose at a 6.7-percent rate. Yet in 1966 prices, expenditures for health still grew by 24 percent during these years, rising to 6.4 percent of real GNP in 1970 from 5.9 percent in 1966.

### THE SUPPLY OF MEDICAL SERVICES

Between 1966 and 1970 the number of active physicians grew at more than twice the rate of the total population; from 151 active physicians per 100,000 people the figure rose to 159. This growth has been accompanied by a decline in the proportion of physicians who provide primary patient care (general practitioners, pediatricians, and internists) and an increase in the proportion who enter the other specialties. Despite some debate over whether the total increase in services has been sufficient to meet the recent increase in demand, there is agreement that the uneven geographic distribution of physicians presents problems for sparsely populated and inner city areas. There is also growing interest in the possibility of improving the organization and delivery of health services to provide more services for people throughout the country. If more doctors were to practice in groups, where they could take advantages of timesaving equipment and allied health personnel, their productivity could be increased. Group practice might be more suitable than solo practice in some of those areas where health services are difficult to obtain.

Between 1966 and 1969, beds in short-term non-Federal hospitals, where most of the acute hospital care is provided, increased by 7.6 percent. Patients' days in the hospital rose somewhat more, by 10.7 percent between 1966 and 1969, and annual patient-days per person in the country rose from 1.095 to 1.178. This rise in patient-days was due primarily to the increased rate of hospital admission of the aged following Medicare and to their longer average stay after entering a hospital. Hospital use among people under age 65 increased only slightly.

## INCREASES OF MEDICAL CARE PRICES

The rapid increase in medical care prices cannot be completely explained by the lack of rapid growth in the supply of the services of physicians and hospitals. The recent increase in fees may be partly a result of the fact that many patients no longer have to pay their own medical bills. The itemized billing required by public and private insurance has also encouraged charging for services which were previously including in a package.

The increased price of hospitalization reflects an increase in the cost of their operation more than a shortage of hospitals. As the financial position of the hospitals has improved following Medicare, they have been more willing to consent to doctors' requests for better equipment and expanded facilities and to pay their employees higher wages. Because Government and most private insurers pay the hospitals according to their costs, these increases are rapidly passed on to the consumer directly or through Government.

## WHO PAYS THE BILLS

While the organization and delivery of health care services has been changing relatively slowly, the method of paying for personal health care has altered dramatically. Private health insurance has grown rapidly in the past two decades and now pays 24 percent of all medical bills as compared to 8 percent in fiscal 1950. Government has expanded its financing of medical care from a responsibility for the Armed Forces, veterans, municipal hospitals, and various public health services to the assumption of a large share of medical bills of the aged and poor. The fraction of medical care expenditures paid by Government has increased from 20 percent in 1950 to 35 percent in fiscal 1970. The consumers of medical services are as a consequence directly paying a decreasing portion of medical care costs. Of the \$280 of personal health care services provided per person in fiscal year 1970, individuals paid out of pocket an average of \$110, or less than 40 percent.

The out-of-pocket share of medical expenses which a family must pay depends greatly on the age of the family members. In fiscal year 1969, Medicare, Medicaid, and other Government programs paid about 72 percent of the medical care expenditures of the aged and, after some smaller contributions from private sources, left them with out-of-pocket expenses averaging \$163 per person. In contrast, the Government paid only about 23 percent of the expenses of persons under age 65. Private insurance paid about 29 percent, and the individual paid 46 percent of the total or an average of \$98. These out-of-pocket expenses are less than those made by the aged, even though the aged pay a lower fraction of their medical bills.

Among persons under age 65, out-of-pocket expenses vary considerably depending upon the type and level of expenditures and upon the income of the family. In 1969 about 81 percent of individuals under age 65 had some form of hospitalization insurance and 79 percent had surgical insurance. Physicians' office visits and many services which prevent serious illness were much less likely to be covered, thereby encouraging resort to hospitalization

even though it tends to involve higher costs. Insurance paid about 70 percent of consumer expenditures for hospital care, about 45 percent of consumer expenditures for physicians' fees, and considerably less of other types of services. Private insurance covers an increasing fraction of a person's expenses as these rise up to some level, but a declining fraction as expenses become very large.

Middle and upper income families are much more likely to be covered by private insurance than are low income families. In 1968, for example, over 90 percent of the persons under age 65 in families with incomes of \$7,000 or more had some type of hospital insurance, while only 36 percent of people in families with incomes below \$3,000 had coverage. Of these low income people, those aged 56-64 were twice as likely to be covered as were children under age 17. The Medicaid program, which pays the medical bills of welfare recipients and certain low income people with high medical expenses, is putting an increasing burden on many States but is often inadequate to meet the needs of the people it is designed to serve. The program also reduces the incentive of poor persons to earn more income by making them ineligible for benefits if their income rises above a certain level.

There have been three broad problems in the Nation's health programs. The distribution of health services is uneven by income groups and geographic areas. There has been an imbalance between programs which increase the demand for these services and programs which augment the supply of trained personnel and improve the organization and delivery of health care services. Finally, there has been the problem of assuring an efficient utilization of the resources devoted to health care. While the increase in real expenditures on health has benefited large groups of the population, further efforts are needed to resolve these remaining problems.

## CHAPTER 5

# The United States in the International Economy

**T**HE VAST EXPANSION OF INTERNATIONAL TRADE AND CAPITAL MOVEMENTS has produced an increasingly complex network of relationships linking domestic economic conditions and domestic economic policies across national boundaries. New and urgent questions have therefore emerged concerning the management of domestic economic policies and the international machinery developed to make it easier for national economies, with their differing policies and objectives, to adjust to each other. The first part of this chapter is devoted to examining the ways in which the various subdivisions of our balance of payments have been affected by changes in economic policies and conditions during 1970.

The relative calm imparted to the international monetary system by the recent correction of persistent disequilibria in several major currencies provides an opportunity to evaluate the system without the pressure of emergency conditions. Such an analysis, placing special emphasis on the unique role of the U.S. dollar in the international monetary system, comprises the second part of this chapter.

A third section reviews international trade policy, which became an urgent issue again in 1970 because protectionist pressures were building up in a number of industrialized countries and threatened to reverse the broad trade-liberalization movement of the postwar years. Two policy problems were particularly important. One was the future of U.S. trade policy, and the other stemmed from the proposed enlargement of the European Economic Community and its implications for the future of an open world trading system.

The final section of this chapter focuses on the continuing search for more effective ways to aid the economic development of the lower income countries and the role played by transfers of both official and private capital in this process. The President's Foreign Aid Message of September 1970 suggested a number of wide-ranging measures to increase the effectiveness of the total U.S. aid effort.

## DOMESTIC ECONOMIC CONDITIONS AND THE BALANCE OF PAYMENTS

### CURRENT ACCOUNT

There is an important relationship between the domestic economy and the balance of trade. Policies that stimulate the domestic economy tend to raise imports and restrain exports. With domestic economic expansion, increases in personal incomes and prices as well as greater pressures on productive capacity at home cause a growing proportion of rising domestic demand to be taken care of through purchases from abroad. And such factors as higher domestic prices, buoyant demand in the convenient and more familiar domestic market, and lengthening delivery schedules limit the rise in exports. Economic policies in other countries also have an important impact on the U.S. balance of trade. For example, the deterioration in the trade balance resulting from a rapid domestic expansion is greater when other countries are not using their own productive resources fully or expanding as rapidly. Moreover, such developments as the long-term decline in the relative importance of transportation costs, the reduction of barriers to international trade, and the increasing similarity of cost structures among industrial nations have tended to increase the responsiveness of trade flows to price and income fluctuations. The composition of U.S. exports and imports has shifted toward finished manufactured goods, the demand for which is more responsive to movements in incomes and relative prices prevailing among the different economies. Finished manufactured goods accounted for only 41 percent of U.S. imports in 1965, a figure which rose to 56 percent in the first 11 months of 1970 (Table 32). And the share of finished manufactured goods in total U.S. exports increased from 58 percent to 62 percent in the same period of time.

TABLE 32.—*Composition of U.S. exports and imports, by major categories, 1965–70*

[Percent of total value]						
Category	1965	1966	1967	1968	1969	1970 <sup>1</sup>
Total domestic exports (excluding military grant-aid).....	100.0	100.0	100.0	100.0	100.0	100.0
Crude foods.....	9.8	11.0	8.5	6.9	5.7	6.4
Manufactured foods.....	6.0	5.4	5.2	5.0	4.8	4.6
Crude materials.....	10.9	10.8	10.7	10.3	9.5	10.5
Semimanufactures.....	15.6	15.0	14.6	15.2	15.7	16.4
Finished manufactures.....	57.7	57.7	60.9	62.6	64.3	62.1
Total imports.....	100.0	100.0	100.0	100.0	100.0	100.0
Crude foods.....	9.4	8.3	7.4	6.9	5.9	6.5
Manufactured foods.....	8.8	9.0	9.4	8.7	8.4	8.8
Crude materials.....	17.3	15.2	13.8	12.1	11.4	10.3
Semimanufactures.....	23.2	21.9	20.8	21.5	18.8	18.1
Finished manufactures.....	41.4	45.6	48.7	50.9	55.4	56.4

<sup>1</sup> Based on first 11 months.

Note.—Detail will not necessarily add to totals because of rounding.

Source: Department of Commerce.

Inflation and relatively full employment in the U.S. economy from 1965 through 1969 and underutilization of resources in several other major industrial countries at various times during that period contributed to a striking deterioration in the U.S. trade balance in the latter half of the 1960's. Beginning with the second quarter of 1969, the U.S. merchandise trade surplus rose sharply. The surplus was \$2.7 billion (on the Census basis) in 1970 compared to \$1.3 billion in 1969. Since mid-1970, however, the trade surplus has declined irregularly. To a considerable degree, the levels of exports and imports in 1969 were affected by temporary distortions arising from the dockworkers' strike. When adjusted to eliminate the effect of these distortions, the figures indicate a somewhat smaller improvement in the trade balance in 1970 over 1969.

Superficially, it would appear that the slowdown in the domestic economy which began in the second half of 1969 failed to exercise a restraining influence on the growth of imports. The value of recorded merchandise imports was 11 percent more in 1970 than in 1969, compared with annual increases of 8.5 percent in 1969 and 23.6 percent in 1968. However, when adjustments are made for strike-related distortions in the flow of imports during both 1968 and 1969, the growth of imports in 1970 shows a slowdown from that of the previous year. Moreover, an unusually large part of the increase in the recorded value of imports in 1970 compared to the previous year—about two-thirds—was accounted for by price increases as measured by the unit value index. The rise in the price index of imports was much sharper than the increase in the U.S. wholesale price index in 1970, suggesting a possible decline in the price competitiveness of foreign goods on the domestic market.

A marked acceleration in the growth of exports (excluding shipments under military grants) occurred in 1970, from an average annual rate of increase of 8.7 percent in the period 1965-69 to an increase of about 14 percent in 1970 over 1969. While continued high levels of economic activity abroad and the slowdown in the U.S. economy undoubtedly helped sustain the growth of exports, the acceleration in this growth in 1970 can be attributed largely to the gain in agricultural exports, initial deliveries of jumbo jets, and recovery from the 1969 dockworkers' strike.

Recent price and cost developments here and abroad appear to favor U.S. exports. From 1960 to 1965, labor costs per unit of output in manufacturing declined in the United States, while they rose in each of the ten other major industrial countries except Canada. This trend was reversed in the latter half of the 1960's. As capacity utilization rose to high levels in the United States, unit labor costs increased at an average annual rate of 3.6 percent in the period 1965-69, substantially higher than in the economies of other major industrial nations, with the exception once again of Canada. Since 1969, labor costs per unit of output have risen faster in several major U.S. trading partners—notably Germany, Italy, and the United Kingdom—than in the United States. There is also some evidence that since the end of

1969 U.S. manufacturing export prices have risen at a slower rate than the comparable export prices and wholesale prices of competitor nations, in marked contrast to the earlier performance. If these developments continue, they should help improve the international competitiveness of U.S. export industries.

The net effect that divergent cyclical movements at home and abroad during 1970 have had on other items in the current account (as defined in Table 33) is unclear. Improvement in the transportation account during the first three quarters reflected in part a large rise in U.S. port expenditures by foreign shippers and in freight receipts by U.S. shippers, both accompanying the surge in trade. The easing of monetary conditions in the United States and the general tightening of credit conditions abroad tended to decrease the rate of interest on foreign-held claims on the United States and raise the rate of interest paid on U.S. claims on foreigners. However, the balance on investment income showed only a slightly larger surplus in the first three quarters of 1970 than during the corresponding period of 1969. Military spending abroad showed little increase as higher living costs and wages in other countries were largely offset by troop reductions, the shutdown of a number of military bases, and smaller outlays for military construction projects. Overall, the current account in the first three quarters of 1970 showed a surplus of \$0.7 billion (seasonally adjusted), an improvement of \$1.6 billion over the corresponding period of 1969.

On the whole, the improved U.S. performance on the current account in 1970 can be attributed to progress in restabilizing the economy and the price-cost level, and to the probability that we were more advanced in this process than much of the rest of the industrial world. Undoubtedly the excess of exports over imports in 1970 would have been smaller under conditions of full employment in the United States and less intense demand pressures abroad. In fact, the irregular decline in exports from the peak reached in mid-1970 may be attributable to a general flattening out of the economic cycle in Canada, Europe, and Japan during the latter part of the year.

#### CAPITAL FLOWS AND MONETARY CONDITIONS

The lessening of demand pressures in the market for goods and services in the United States during 1970, together with an easing of monetary policy, were gradually reflected in the financial markets. In a number of other important countries, however, demand pressures continued to increase, at least in the first part of 1970, with the result that financial conditions abroad continued to tighten after they had begun to ease in the United States. This shift in relative monetary conditions contributed to substantial net outflows of private liquid capital from the United States during 1970.

Tight monetary conditions in France, Italy, the United Kingdom, and, most particularly, Germany, encouraged large capital inflows into those nations. Much of these came from the United States via the Eurodollar mar-

ket, despite German efforts to discourage such inflows by imposing additional reserve requirements on increases in the foreign liabilities of German banks. The largest such flow occurred in November, when the Bundesbank's reserves rose by \$1.6 billion. In an apparently successful effort to halt these inflows, the German authorities reduced the discount rate by 1 percentage point in two successive cuts within a 3-week period.

U.S. banks reduced their borrowing from their foreign branches substantially during 1970. The liabilities of U.S. banks to their foreign branches were lowered by about \$1 billion during the first quarter of the year, as the easing of credit conditions in the United States made less expensive funds available in this country while interest rates in the Eurodollar market remained higher than comparable U.S. rates throughout most of 1970. In late June, the Federal Reserve suspended the interest-rate ceiling on 30- to 89-day large-denomination certificates of deposit. American banks increasingly tapped this source of funds, and their borrowings of Eurodollar deposits from their foreign branches fell sharply, from \$11½ billion to \$7 billion, during the second half of 1970.

There were also substantial changes in long-term capital movements between 1969 and 1970. U.S. direct investment outflows increased from \$2.8 billion during the first three quarters of 1969 to \$3.6 billion during the corresponding period of 1970, reflecting the projected 16-percent increase in plant and equipment expenditures for 1970 by foreign affiliates of U.S. corporations. At the same time foreign direct investment inflows to the United States increased to \$0.8 billion. Net foreign purchases of U.S. stocks and bonds (exclusive of U.S. agency bonds) declined substantially, from \$1.9 billion during the first three quarters of 1969 to \$1.1 billion during the comparable period in 1970. This decrease was largely a response not only to a sharp decline in U.S. security prices during the spring but to the difficulties experienced by several of the large offshore investment funds and the consequent regulations imposed by several European nations. Net U.S. purchases of foreign securities also declined dramatically, from \$1.4 billion during the first three quarters of 1969 to \$0.6 billion during the corresponding period in 1970.

#### OVERALL DEFICIT

The net effect of changes in the current and capital accounts during 1970 was a considerable reduction in the recorded U.S. liquidity deficit but a marked deterioration in the official reserve transactions balance. In response to the latter, the Federal Reserve Board took steps in December to discourage further repayment of Eurodollar borrowings by U.S. banks. This action was undertaken partly because of concern that the capital inflows which were causing some countries to gain dollar reserves might undermine the efforts of their monetary authorities to maintain restrictive monetary policies for domestic purposes.

Preliminary estimates indicate that the U.S. liquidity deficit in 1970 was somewhat less than \$4 billion, or more than \$4½ billion excluding the allocation of Special Drawing Rights (SDR's), a sharp reduction from the 1969 liquidity deficit of \$7.0 billion. Preliminary estimates of the 1970 balance on the official reserve transactions basis indicate a deficit of about \$9½ billion, including the allocation of SDR's, as compared with a surplus of \$2.7 billion in 1969. (These figures differ from those in Table 33, which are figures for the first three quarters of 1970, seasonally adjusted, stated at annual rates.)

While the recorded liquidity deficit showed a sharp improvement in 1970, this balance was distorted by special financial transactions and flows of U.S. funds to the Eurodollar market which, particularly in 1969, enlarged the "errors and omissions" item. In addition, the 1970 figure included the initial allocation of SDR's to the United States. If adjustments are made for these factors, the underlying deficit in the first three quarters of 1969 was about \$4½-\$5 billion and about \$3½-\$4 billion in the corresponding period of 1970. This moderate improvement largely reflected the increase in the trade surplus, partly offset by larger net outflows of private capital.

The sharp deterioration in the official reserve transactions balance in 1970, despite the improvement in the liquidity balance, reflected the very sharp shift in the flow of foreign private liquid funds—from a net inflow of \$8.7 billion in 1969 to an outflow of \$3.3 billion in the first three quarters of 1970. (This is shown in Table 33, but the 1970 figures there are reported at annual rates.) These flows were largely associated with the shift, referred to earlier, in U.S. banks' Eurodollar borrowings through their foreign branches.

The U.S. official reserve transactions deficit in 1970 was financed partly by decreases in our total stock of reserve assets. Such assets registered a decline of \$2.5 billion during 1970, even with a nearly \$1 billion increase in holdings of SDR's that largely reflected the \$867 million initial allocation in January. The remainder of the deficit was financed by increases in liquid liabilities to foreign official agencies.

Despite the substantial buildup of dollar balances in the hands of foreign official holders, 1970 was a year of general calm in the foreign exchange markets. It was free of any crises like those that had occurred intermittently in preceding years.

## MANAGING CAPITAL MOVEMENTS

The large capital movements occurring, as described above, in response to changes in relative interest rates and monetary conditions are the outgrowth of the increasing internationalization of capital markets, especially the development of the Eurodollar market. The increasing mobility of capital is a reflection of the growing flexibility and responsiveness of capital markets, which contribute to the efficient international allocation of investment and production. This mobility nevertheless involves some problems. The responsiveness of short-term capital flows to variations in timing and degree in the

use of monetary policy can both undermine the effectiveness of monetary policy as a domestic stabilization tool and produce significant balance-of-payments disturbances. It is possible to argue that such short-term capital flows are largely temporary and usually self-reversing, and therefore that one need not be concerned about their balance-of-payments consequences. Traditionally, however, several courses of action have been suggested to alleviate problems arising from international movements of interest-sensitive funds. One is to offset these capital flows through flexible official financing; another is to reduce reliance on monetary policy as an internal stabilization tool; and a third is to insulate domestic money markets by direct control of capital movements.

Important steps to facilitate the offsetting of large international flows of liquid capital through international cooperation have been taken by developing flexible arrangements for short- and medium-term official financing, and by other forms of cooperation among national monetary authorities and such international institutions as the International Monetary Fund (IMF), the Bank for International Settlements, and the Organization for Economic Cooperation and Development. But the experience so far with such arrangements indicates that, while they are helpful in preventing balance-of-payments difficulties arising from such flows, in general they cannot completely offset the problems that such flows pose for domestic monetary management.

The second alternative would imply achieving a domestic fiscal-monetary mix that would place heavier reliance on fiscal measures for the achievement of domestic goals; monetary measures would then be directed more toward international goals. Whether such a shift in the policy mix is desirable is a question which must be decided with reference to its domestic effects rather than on the grounds of balance of payments alone. There are, moreover, rather obvious practical limitations to this option. Changes in tax rates and in the level of Government expenditures are difficult and time-consuming. Even more important, any major effort to rely more heavily on changing the "mix" of domestic monetary and fiscal policies presupposes a more precise knowledge than now exists of the different effects of monetary and fiscal policies on internal stability and external balance.

The third alternative is to take policy actions which directly affect capital movements. The United States, for balance-of-payments purposes, instituted three programs to control capital outflows during the 1960's. One was the Interest Equalization Tax in 1963, which applies to securities sold in U.S. capital markets by developed countries (except new Canadian issues) and long-term bank loans (with similar exemptions). The second was the Federal Reserve's Voluntary Credit Restraint Program, initiated in 1965, which provides guidelines for capital flows from banks and other financial institutions. Also in 1965, voluntary restraints on direct investment were established under the direction of the Department of Commerce; this program was converted into the mandatory Foreign Direct Investment Program at the beginning of 1968.

Controls on capital movements are widely used; they are permitted by the International Monetary Fund Articles of Agreement and are generally regarded as less undesirable than controls on current account transactions. But they involve some economic costs of their own, and their duration poses problems. With respect to the Foreign Direct Investment Program, for example, the passage of time is likely to bring more and more ways of bypassing the controls. Insofar as the controls are effective, the longer they remain the greater will be the potential capital outflow when they are lifted and corporations attempt to repay foreign lenders. Finally, there is some concern about what effect the heavy foreign borrowing, induced by the direct investment controls, might have on the debt structure of foreign affiliates of U.S. corporations.

This Administration has affirmed its view that such controls are temporary measures and must not become part of the permanent tool kit of policy instruments because they distort the efficient allocation of capital. The relaxation of the Foreign Direct Investment Program which began in 1969 has been continued with due regard to the balance-of-payments situation. In 1970, the "minimum allowable investment" (i.e., the amount not subject to restraint) was increased from \$1 million to \$5 million per year, provided that the additional \$4 million was used in the designated group of lower income countries. Changes in the regulations concerning foreign borrowings which may be offset against direct investment expenditures permitted greater flexibility in financing foreign investment projects, as did new provisions regarding the amount of earnings which may be reinvested and the conditions under which earnings may be transferred among designated groups of countries. In January 1971 the annual investment amount not subject to the controls was raised from \$1 million to \$2 million without geographical restriction and the proportion of the previous year's earnings which may be reinvested was increased.

Offsetting official financing, changes in the mix of monetary and fiscal policies, and the use of direct controls on capital movements do not, however, provide a fully satisfactory answer to the policy problems posed by the increasing integration of capital markets, and this fact has led to a growing interest in finding alternative solutions. One answer might lie in no longer trying to insulate national capital markets but substituting instead a greater conscious international coordination of monetary policies. A solution relying on international coordination is often limited, however, by the fact that it implies restrictions on the freedom to direct monetary policy toward domestic economic problems. Where full coordination is not practicable, one mechanism for providing greater insulation of domestic capital markets, and therefore a somewhat more independent monetary policy, would be greater flexibility of exchange rates within the framework of the present system established at Bretton Woods. If there were more scope for changing exchange rates in response to market forces, the sensitivity of short-term

capital movements to differences in national monetary conditions might be somewhat reduced.

While the concern about how the balance of payments is affected by interest-sensitive flows of short-term capital may be exaggerated, it must be recognized that major countries will continue to rely heavily on monetary policy to influence the domestic economy. The management of the resulting flows of short-term capital will therefore continue to occupy monetary and financial authorities.

## THE UNITED STATES IN THE INTERNATIONAL MONETARY SYSTEM

The U.S. dollar plays a number of key roles in the international monetary system. It is widely used to finance private international transactions, even if no American is involved. It is also the currency used by national authorities in their operations in foreign exchange markets, and dollar holdings are an important component of world reserves. Because of its international roles, the dollar further serves as the yardstick by which the values of many free world currencies are measured. As a result, developments in the United States economy and balance of payments, and the attitudes other countries take toward these developments, are of key importance in the smooth functioning of the international monetary system.

### MEASURES OF THE U.S. BALANCE-OF-PAYMENTS POSITION

The measures of our payments balance officially published by the U.S. Government tend to be widely interpreted as indicators of how close to—or far from—the most desirable situation we stand at a given time, even though there is no clear consensus on how the optimum situation is to be defined. A great deal of attention has been devoted to assessing the adequacy of the two overall measures of the payments balance now used. One is the liquidity balance, which is equal to the change in our holdings of international reserve assets less the change in our liquid liabilities to all foreigners, official and private. The second is the official reserve transactions balance, which is equal to the change in our stock of international reserve assets less the change in liquid and certain nonliquid claims on the United States by foreign official monetary institutions. From the search for improved measures has emerged increasing agreement that no one measure can adequately summarize the changes in this country's international financial position.

The most commonly used measure of the U.S. payments position, the liquidity balance, was originally intended as a measure of changes in this country's ability to maintain conversions of dollars into gold at a fixed price ratio. There has been considerable discussion as to whether the statistical presentation of the liquidity balance is the best possible reflection of its underlying concept. This problem was discussed in detail in the 1970 *Economic Report of the President*.

More fundamentally, however, some liquidity deficit will normally arise when a reserve country acts as an international banking center. Foreigners tend to accumulate short-term claims on such a country, and in turn the country may build up a growing net investment in foreign countries at longer term. At the same time, a continuing liquidity deficit means that the ratio of reserves to liquid foreign claims is being lowered. The present situation results partly from the growth of world liquidity which was necessary to accommodate the expansion of world trade and investment over the past two decades—that is, in part it reflects the successes of the international economy. Variations in the volume of our liquid liabilities relative to their reserve backing are therefore not the primary determinant of how desirable the dollar is as a reserve asset.

The U.S. responsibility for converting foreign liquid claims into other reserve assets is limited to the holdings of foreign official institutions. Since the adoption in March 1968 of the two-tier gold system, the possibility of flows of gold from the U.S. reserve stock through foreign official institutions into private hands has been eliminated. As a result, the liquidity balance has lost much of its significance.

In recent years, increasing attention has been focused on the official reserve transactions balance. This balance, with appropriate adjustments, measures the quantity of claims on the United States which foreign authorities have acquired or given up in the process of maintaining the exchange value of their currencies within the prescribed margins. There are considerable difficulties in reading the signals given by the official reserve transactions balance, however. For one thing, it is volatile, exhibiting wide year-to-year swings as shown in Table 33. Moreover, a movement of dollars from foreign private accounts to foreign official accounts will increase the official reserve transactions deficit; movement in the other direction will decrease it. Such movements may in some cases signal shifts in the degree of foreign confidence in the dollar relative to other currencies. In other cases they may simply be due to changes in monetary conditions and interest rates which alter the attractiveness of dollar assets to foreign private holders, quite apart from speculative considerations. Because of the obligation to keep their countries' exchange rates within 1 percent or less of the par value, central banks are essentially passive in such transactions. In still other cases, shifts of dollar holdings between the central bank and commercial banks may represent the deliberate exercise of selective measures designed to reduce or to enlarge published reserves.

For all these reasons, no single concept of the balance will suffice for all purposes. Beyond the liquidity and official reserve transactions balances, at least two other "balance" concepts can be useful. One is the balance on current account or balance on goods, services, and unilateral transfers (both government and private). Such a balance indicates the extent to which our country is currently earning the foreign exchange it needs to carry out its international lending and investment expenditures. Properly adjusted for

TABLE 33.—U.S. balance of payments, 1961–70

[Billions of dollars]

Type of transaction	1961–65 average	1966	1967	1968	1969	1970 first 3 quarters <sup>1</sup>
Merchandise trade balance.....	5.4	3.9	3.9	0.6	0.6	2.7
Exports.....	23.0	29.4	30.7	33.6	36.5	42.1
Imports.....	-17.6	-25.5	-26.8	-33.0	-35.8	-39.4
Balance on investment income.....	3.5	4.1	4.5	4.8	4.4	4.3
U.S. investments abroad.....	4.9	6.3	6.9	7.7	8.8	9.6
Foreign investments in the United States...	-1.3	-2.1	-2.4	-2.9	-4.5	-5.3
Balance on other services.....	-2.5	-2.7	-3.2	-2.9	-3.1	-3.1
BALANCE ON GOODS AND SERVICES <sup>2</sup> .....	6.5	5.3	5.2	2.5	1.9	3.9
Unilateral transfers, net; transfers (-) <sup>3</sup> .....	-2.7	-2.8	-3.0	-2.8	-2.8	-2.9
BALANCE ON CURRENT ACCOUNT.....	3.8	2.5	2.2	-3	-9	1.0
Balance on direct private investments.....	-2.2	-3.6	-2.9	-2.9	-2.2	-3.8
U.S. direct investments abroad.....	-2.2	-3.7	-3.1	-3.2	-3.1	-4.8
Foreign direct investments in the United States.....	.1	.1	.3	.3	.8	1.0
Transactions in securities.....	-.8	.4	.3	3.1	1.6	1.0
Transactions in U.S. long-term assets.....	-.6	.2	( <sup>4</sup> )	.1	-1	-.6
Transactions in U.S. long-term bank liabilities to other than official foreign agencies, and all long-term nonbank liabilities.....	.1	.4	.2	.8	.8	.9
Certain transactions in U.S. Government assets <sup>5</sup> .....	-1.8	-2.0	-2.4	-2.5	-2.1	-1.8
BALANCE ON CURRENT AND LONG-TERM CAPITAL ACCOUNTS <sup>6</sup> .....	-1.4	-2.0	-3.1	-1.7	-2.8	-3.3
Transactions in U.S. short-term assets.....	-9	-4	-1.2	-1.1	-6	-3
Nonscheduled repayments on U.S. Government credits.....	4	.4	( <sup>4</sup> )	.2	-1	.3
Long-term bank liabilities to foreign official agencies.....	( <sup>4</sup> )	.8	.9	.5	-.8	-.8
Transactions in U.S. short-term nonbank private liabilities, and nonmarketable liabilities of U.S. Government.....	.5	.4	.9	2.7	.2	.9
Errors and unrecorded transactions.....	-9	-.5	-1.1	-.5	-2.8	-2.0
Allocations of special drawing rights.....						.9
BALANCE ON LIQUIDITY BASIS.....	-2.3	-1.4	-3.5	.2	-7.0	-4.4
Less: Certain nonliquid liabilities to foreign official agencies.....	.1	.8	1.3	2.3	-1.0	-.2
Plus: Foreign private liquid capital, net.....	.7	2.4	1.5	3.8	8.7	-4.5
BALANCE ON OFFICIAL RESERVE TRANSACTIONS BASIS.....	-1.8	.3	-3.4	1.6	2.7	-8.7
<i>Addendum:</i> Special financial transactions.....	.6	1.6	1.3	2.7	-.6	.5
BALANCE ON LIQUIDITY BASIS EXCLUDING SPECIAL FINANCIAL TRANSACTIONS AND SDR ALLOCATIONS.....	-2.9	-2.9	-4.8	-2.6	-6.4	-5.8

<sup>1</sup> Average of the first 3 quarters at seasonally adjusted annual rates.<sup>2</sup> Excludes transfers under military grants.<sup>3</sup> Excludes military grants of goods and services.<sup>4</sup> Less than \$0.05 billion.<sup>5</sup> Transactions in U.S. Government assets, excluding official reserve assets, net, less nonscheduled repayments on credits (including sales of foreign obligations to foreigners).<sup>6</sup> One version of the "basic balance" under consideration. Another variant is the "nonmonetary balance" used by the International Monetary Fund.

Note.—Detail will not necessarily add to totals because of rounding.

Source: Department of Commerce.

earnings reinvested abroad, for errors and omissions, and for changes in the valuation of domestic and foreign assets, the current account also indicates

changes in our net international investment position or "net worth," which may well be considered more meaningful than any other measure of changes in the basic strength or weakness of our international financial position. At the end of 1969, for example, our net foreign assets amounted to \$67 billion, an increase of \$1.5 billion over the total a year earlier.

Another concept, currently being considered for inclusion in the Government's table of balances, is the basic balance. Such a balance would measure our net position on current account plus "nonliquid" or "nonvolatile" capital transactions, treating changes in private liquid assets and liabilities as financing items. The aim underlying the basic balance is to group together those balance-of-payments items which best reflect broad, persistent forces or underlying trends, treating more volatile classes of transactions among the financing items. Because of the difficulties of approximating such a distinction with available statistical data, several variants of the basic balance have been suggested as best reflecting the fundamental concept.

The four balances just discussed—the liquidity balance, the official reserve transactions balance, the current account balance, and the balance on current and long-term capital accounts, which is one of several versions of the basic balance currently under consideration—are shown for the past decade in Table 33. Despite their conceptual and statistical differences, all these measures of our payments balance suffer from a common difficulty, namely, that none of them can give more than one side of the picture. The other side, which because of measurement problems does not appear in any presentation of the U.S. balance of payments, is the demand side: the number of dollars foreigners want to add to their reserve stocks in any given year. Rather than the quantity of dollars flowing into foreign hands, it is the difference between this amount and the amount they want to hold, given existing conditions, that would be a true indicator of disequilibrium in the international economic and financial position of the United States.

### *The Composition of Reserves*

It is generally thought that, aside from political considerations and questions of confidence, the quantity of dollars foreign authorities want to add to their reserves depends partly on the desired rate of growth of aggregate international reserves and partly on the availability and desirability of alternative sources for increasing reserves. The expansion in the supply of monetary gold has for some time been erratic and insufficient to meet the increasing reserve needs which have accompanied the rapid growth of world trade and capital transactions. Under these circumstances, a steady accretion of foreign exchange, primarily dollars, to world reserves has filled this gap and prevented a general inadequacy of international reserves.

With the IMF's decision to allocate \$9.5 billion of Special Drawing Rights to member countries over the 3-year period 1970–72, an important alternative source of new reserves was created. A first allocation of \$3.4 billion was made on January 1, 1970, a second allocation of \$2.9 billion

was distributed at the beginning of 1971, and a third allocation of \$3.0 billion is planned for the beginning of 1972. It is envisaged that SDR's will eventually supplant dollars as the major source of reserve growth, although the SDR allocations for the 1970-72 period were determined with the expectation that dollars and other traditional sources of increases in official reserves would supplement this new reserve "money."

The question of the size of foreign official demand for dollars, however, involves another complication. In addition to wanting growth of reserves, foreign official institutions generally have preferences concerning the composition of their reserve stocks: what proportion will be represented by gold, SDR's, and dollars (as well as, in some cases, smaller amounts of other convertible currencies). In part these preferences may arise from the differing characteristics of the three major reserve assets. The yield, for example, is zero on gold holdings, 1.5 percent on SDR's, and substantially higher on dollar holdings. Also, unlike dollars, SDR's and monetary gold (since the institution of the two-tier gold system) can be transferred only among central banks or other official institutions; they cannot be used for commercial transactions. Much more important, however, is that most industrial countries would apparently like to run some sort of basic balance surplus or a current account surplus with the rest of the world. The demand for reserve dollars, therefore, seems to be affected not only by countries' reserve goals but also by their balance-of-payments goals, measured "net" of new SDR allocations. SDR's help to satisfy the first of these goals but not the second, unless the goals themselves are modified.

The combined growth of official and private foreign demand for dollars determines the equilibrium size of the liquidity deficit of the United States. How much the private component of this demand grows will also depend both on the rate at which nonofficial holders want to increase their aggregate working balances of international currencies and on the desired composition of these balances.

A number of characteristics have made the U.S. dollar particularly suited to its role as the most widely used currency for international transactions. Among them are the scale and efficiency of the American banking system, the size and depth of our capital markets, and the freedom of the dollar both from changes in its foreign-exchange value and from exchange controls affecting foreigners. So far, the development of European capital markets seems to have enhanced rather than reduced the role of the dollar as a vehicle currency, although it is too early to tell what ultimate effect the European Economic Community's proposed movement toward a currency union will have through the decade of the 1970's.

The economic well-being of the United States does not require that foreign demand for dollar balances continue growing at any particular rate. What is important is to distinguish clearly between measured U.S. deficits and the strength or weakness of our international financial position. Throughout most of the 1950's, while the United States had a measured

deficit in its balance of payments nearly every year, there was widespread concern about a worldwide "dollar shortage." This concern suggested that the measured U.S. deficit during those years was below its equilibrium size as determined by the growth of world demand for dollar reserves. The point is that it is essential that consideration of the foreign demand for dollars should temper any use of measured balance-of-payments deficits as the basis for policy decisions affecting our domestic economy or our international economic relationships.

### *Balance-of-Payments Goals*

In the present international monetary system, in which the dollar serves as a yardstick, other countries, by selection of their exchange rates, in effect determine the exchange value of the dollar. The balance-of-payments position of the United States, however it is measured, depends therefore not only on the state of our domestic economy and on the economic behavior of our citizens and Government but on the economic performance and policies of other countries, including their decisions about exchange rates. Individual countries take actions that they consider appropriate to their particular circumstances. Collectively, those actions are not always easily reconciled with other countries' statements about the most desirable payments position for the United States. During the 1960's, for example, there were frequent expressions of foreign concern about the size and persistence of the U.S. deficit. Yet the net result of exchange-rate changes by leading industrial countries was a very slight actual appreciation of the dollar—a development which would inevitably have some tendency to weaken our current account balance.

The United States has full responsibility for maintaining a noninflationary expansion of its domestic economy. This responsibility was not met in the latter half of the 1960's, and U.S. performance during this period clearly contributed to the deterioration of our balance of payments. Nevertheless, regardless of our domestic performance, there are no measures which the United States can take to satisfy balance-of-payments demands of various countries if these demands are fundamentally inconsistent. No matter what constraints the Government imposes on the domestic economy, and no matter how many measures it adopts to alter or control individual categories of international transactions, the United States will not be able to abolish its balance-of-payments deficits if most of its major trading partners establish exchange rates and follow other balance-of-payments policies that enable them to run surpluses over and above their SDR allocations.

This problem of the possible inconsistency of balance-of-payments goals cannot, in short, be solved through unilateral policy action by the United States. Instead it requires multilateral action by the members of the International Monetary Fund—the present framework for international monetary relationships among the countries of the free world. One step toward the solution of this problem has already been taken with the establishment

of Special Drawing Rights, international reserves which do not depend on a persistent deficit in the balance of payments of the United States or any other country. The purpose in instituting SDR's and related arrangements with respect to reserve creation is, of course, to provide a situation in which all countries can satisfy their demands for reserve increases simultaneously, so that the reserve center need not be forced into persistent deficit through policies adopted by other countries to run net surpluses in their balance-of-payments transactions.

Ideally, the rate of reserve creation should be neither too small nor too great. If it is too small, at least some countries will find their reserve goals frustrated, and their efforts to prevent the inadequacy of their reserves from imparting deflationary pressures to their domestic economies are likely to lead to increasing restrictions on international transactions and a competitive upward pressure on interest rates. If the rate of reserve creation is too great, the excess liquidity will be a vehicle for transmitting inflationary pressures internationally and will make it more difficult for national authorities to control domestic inflation.

In practice, however, it is not possible to find a rate of creating world reserves that is just right for every country. The objective must be a rate which best reflects an international consensus as to the most desirable trend of reserve growth. Moreover, even with such a consensus, problems would still arise if, as suggested earlier, other countries were to formulate balance-of-payments goals that were inconsistent with their aims regarding the composition of international reserves.

### *Exchange Rates*

Because of the possibility that reserve creation and reserve management alone cannot solve the dilemmas just described, interest has recently focused on increased, though limited, flexibility of exchange rates. Changes in official parities have occurred in the past, of course, and have played a role in stabilizing the international monetary system. But the political consequences inherent in exchange-rate decisions have made countries hesitant to undertake such adjustments. As noted earlier, exchange-rate changes by industrial countries in the 1960's resulted in a small net depreciation of these currencies against the dollar, in part perhaps because political inhibitions against exchange-rate changes tend to be stronger in the case of appreciation than in the case of depreciation. To the extent that such an asymmetry exists, its effect is to favor a devaluation against the international standard—the dollar. Opinions about the quantitative significance of this tendency differ, but there is a widespread feeling that modifications which would make exchange-rate changes less politically charged and less likely to lead to speculative disturbances would contribute to the smoother and more effective operation of the existing system.

More frequent and smaller changes in the dollar parities of currencies would reduce the tendency for sizable payments imbalances to build up. This

in itself would be an advantage, but an added advantage would arise insofar as the calculation of the appropriate new par became less critical. With smaller and more frequent changes in par value it would be easier to modify those which turned out to be either inadequate or excessive.

Smaller and more frequent changes in parity would not necessarily involve a change in the present IMF rules, but only a change in the practices which member nations have generally followed. A recent report by the Executive Directors of the IMF notes that the Fund is empowered "to concur in members' proposals for prompter and smaller changes in parities, whenever these are necessary to correct a fundamental disequilibrium."

On two recent occasions the difficulty of identifying an appropriate new par value has led countries to move away from the existing exchange-rate parity without immediately choosing a new one. At the end of September 1969 the German Government closed its foreign exchange markets under the pressure of a large capital inflow. When the markets were reopened several days later, no attempt was made to defend the old parity, thus introducing a period of "transitional float." The mark moved upward on the exchanges, and when a new par value was declared toward the end of October it exceeded the previous one by more than 9 percent. A somewhat different case arose at the end of May 1970 when, in the face of a very strong payments position and domestic inflation, the Canadian Government withdrew its defense of the existing par value; it has not yet declared a new one.

There is also the possibility of introducing greater flexibility by some widening of the margin permitted under the present IMF rules for exchange-rate variation around each country's par value. This margin or "band" is now 1 percent each way. Such an increase in the scope for market-induced movements of exchange rates might have several advantages. By increasing the risk of exchange-rate loss and thereby reducing the sensitivity of some types of short-term capital movements to differing degrees of tightness or ease in national money markets, it would make possible greater independence in national monetary policies. It could also be expected to reduce pressure on official reserves by encouraging stabilizing movements of private funds in cases where payments disturbances are regarded as temporary and self-reversing, and by decreasing the potential profitability of speculative flows based on anticipations of a change in parity. Such potential profitability would be reduced not only because the speculators would lose more if they guessed wrong but because the broader scope for exchange movements within the margins might in some cases reduce the need for actual parity changes.

All of the possible modifications just described are at present under study by the IMF in its consideration of whether amendments to its Articles of Agreement are necessary or desirable to encourage the most effective utilization of exchange-rate policies as a tool of international adjustment. The need is to find modifications of law or practice that will alleviate in the best pos-

sible way the recurring financial strains in the existing system while still maintaining the essential characteristics of a monetary system under which steady and dramatic advances in world trade and prosperity have been achieved.

## ADJUSTMENTS IN INTERNATIONAL TRADE

Improvement in the monetary system has been one of the two major developments in the international economy since World War II. The other is the cooperative effort to dismantle the network of barriers that had obstructed the international exchange of goods and services prior to and during the war. Although many obstacles to trade still exist, gradual tariff reductions have been an important stimulus to the rapid postwar expansion of world trade. A number of international institutions, in particular the General Agreement on Tariffs and Trade (GATT), have been instrumental in reducing the hindrances to freer trade on a multilateral basis. Some problems of adjustment have emerged, however, as international trade has become more important in each country's affairs.

During the 1960's the volume of world trade (excluding that of Communist countries) grew considerably faster than real income in this group of countries, and the relative importance of trade to the American economy has increased as well. For example, the trend rate of growth of real imports of goods and services in the United States during the period 1955-68 was 1.6 times as great as that of real domestic production. In the same period the trend rate of growth of exports in real terms was 1.4 times that of output. Among broad categories of manufacturing industries, sharp increases in penetration by imports were registered in the latter half of the 1960's in apparel, leather goods, electrical machinery, transportation equipment, and other durable goods. The ratio of exports to total output rose significantly in the lumber, electrical machinery, transportation equipment, and primary and fabricated metals industries. Clearly, the growth of U.S. trade has signified not only greater availability of foreign manufactures, but also wider markets for many domestic products.

### U.S. TRADE POLICY

The liberal trade policies followed since World War II have not only expanded our exports and imports but have also contributed to a higher standard of living with a richer choice of products both here and abroad. At the same time, these gains require domestic adjustments in certain industries that grow more slowly, or even contract, as a result of trade liberalization. Despite the overall gains, the problems of adjustment and the natural tendency for an industry to resist foreign competition have brought renewed pressures in recent years to reverse trade liberalization. Pressures have also grown because of protectionist actions by some of our trading partners and because the reduction in our merchandise trade surplus has led to a belief that the United States is now benefiting less from trade.

All these pressures converged during 1970 when Congress considered new trade legislation. The trade bill recommended by the President in 1969, and described more fully in the 1970 *Economic Report of the President*, included several measures that represented continued progress in our trade policy. In addition to authority for limited tariff reductions and elimination of the controversial use of the American selling price as a basis for setting certain import duties, the bill proposed new authority to act against countries that employ export subsidies in competition with U.S. exports in third markets. Most important, perhaps, was the bill's proposal to liberalize criteria for providing adjustment assistance to workers and businesses adversely affected by imports.

Certain additional features were subsequently added to the President's proposal. Some of these, including an amendment to allow Domestic International Sales Corporations that would provide tax deferrals to U.S. exporting firms, and the addition of textile quota provisions designed to assist in the conclusion of international agreements on textiles, were supported by the Administration. Other amendments, many of them unacceptable to the Administration, were eventually included in a bill passed by the House of Representatives. The most questionable was a provision to impose increased restrictions on imports of products which met certain quantitative criteria in cases where the Tariff Commission found injury. This and several other amendments threatened to reverse the steady progress that had been achieved in liberalizing our trade policy. The bill opened the prospect of retaliation by other countries against U.S. exports, and it would have weakened the fight against domestic inflation.

U.S. trade policy clearly reached a critical juncture in 1970. Although Congress did not adopt protectionist trade legislation, the pressures for greater import restrictions remain strong at the beginning of 1971. If the broad gains to the economy that have resulted from increasingly open access to markets here and abroad are to be sustained, it is important that the wider public interest be voiced as strongly as the complaints of adversely affected parties. At the same time, better means must be found to meet legitimate problems of adjustment in some industries affected by rapidly increasing imports.

### *Domestic Adjustments to Changes in Trade Patterns*

The burdens of adjustment to foreign competition are too often ignored by those who advocate free trade. Much fixed capital, such as specialized machinery, is not transferable to other industries. Workers will have the difficulty of changing jobs, of moving and starting a new home; some who have acquired skills not needed in other industries may face unemployment or lower incomes.

Import restrictions, however, are neither the only solution to these problems nor in principle the best one. A better approach, taking into consideration the interests of both consumers and producers, is to do more to facilitate

the adjustments that injured firms and workers must make. As the President recognized in his original trade bill proposal, adjustment assistance should become available at an earlier point in an industry's struggle to compete with imports. Moreover, it should become available more quickly after the application for aid.

Use of the adjustment assistance provisions of the Trade Expansion Act of 1962, although still limited, expanded notably during 1970. For the first time since the program's inception, the President authorized firms and workers in three industries to apply directly to the Secretaries of Commerce and Labor for assistance. The number of workers and firms actually certified for assistance, including some in other industries that had requested assistance individually from the Tariff Commission, increased greatly during 1970.

There are, of course, costs in administering and financing adjustment assistance programs. These costs, which would be substantial in the case of a large industry such as textiles, are ultimately paid by taxpayers. The aim of such programs, however, is not to provide compensation payments indefinitely to injured firms and employees, but to ease the transfer of labor and other resources to more productive sectors of the economy. For workers, this means retraining and assistance in job hunting. The costs to taxpayers should thus decrease eventually as workers in the injured firms obtain new jobs or reach retirement age. On the other hand, the costs that import quotas create for consumers in the form of higher prices and a narrower choice of goods continue as long as the quota remains in effect.

There may occasionally be sound reasons for reducing the burden of adjustment on import-competing industries by obtaining agreement from foreign exporters to restrict their shipments. This has been done for a number of commodities, including cotton textiles, meat, and steel. The Administration has attempted to negotiate similar restraints for manmade textiles and woolen goods. Such voluntary agreements affect prices in the importing country in the same way that quotas permitting a like volume of imports would do, but their provisions tend to be more flexible than those of legislated quotas.

The main drawback of a quota as compared to a tariff is that unless a tariff is prohibitive it does not inhibit competition as much as a quota, unless the quota is ineffective. This is so because a tariff allows imported goods to enter if, even with the tariff, they are competitively priced. A tariff therefore puts a limit on the amount by which the domestic price can exceed the world price. An effective quota, on the other hand, does not put any limit on the rise in domestic prices. Those who are permitted to import under a quota system are under no obligation to pass on the lower world price to their customers; their right to import gives them a windfall profit. Under a tariff the difference between the world price and the domestic price accrues to the Treasury. In those schemes for quotas or voluntary restraints which do not call for import licenses, the quotas are in effect controlled by the foreign exporter, who is therefore in a position to capture the windfall. In the case of imported beef, for instance, export prices to the United States from the

principal supplier are between 10 and 20 percent higher than the export prices to other countries. It is clear therefore that quotas should only be used where no satisfactory alternatives are available.

All these reasons make it important for countries participating in the world trading system not only to reduce tariff barriers but also to work toward eliminating various nontariff barriers to trade. Preliminary efforts to develop a common framework for negotiating reductions in such barriers have begun within GATT, and it is hoped that they will be intensified during 1971.

While much attention has been focused on adjustment problems where labor and capital have been hurt by foreign competition, it is often overlooked that erecting barriers to trade would cause similar problems for firms and workers in exporting industries if other countries reduced their imports from the United States either in retaliation or as a result of the normal response mechanisms in international transactions. It has been estimated that in 1969, 3.8 percent of the private labor force was directly or indirectly dependent upon exports for employment, the same percentage as in 1965 (Table 34). This figure includes not only labor employed directly in producing exports but also labor involved in producing items used in the final export goods. The proportion of agricultural workers whose output found a market abroad has been relatively high for many years. Between 1965 and 1969, however, the proportion of employment accounted for by exports in manufacturing rose and that in agriculture, forestry, and fisheries declined.

Wages in export industries are usually higher than in import-competing industries. For example, a weighted index of wage rates for production workers in manufacturing whose jobs depended on exports in 1966, the latest year for which information is available, was 8 percent higher than the average earnings in jobs which might have been created by import replacement.

TABLE 34.—Percent of private employment related to U.S. merchandise exports, 1960, 1965, and 1969

Industry or sector	Export employment as percent of total private employment <sup>1</sup>		
	1960	1965	1969
Total employment.....	3.9	3.8	3.8
Agriculture, forestry, and fisheries.....	9.8	10.9	9.4
Mining.....	9.1	8.4	9.2
Construction.....	.6	.6	.6
Manufacturing.....	6.1	6.2	6.9
Services.....	1.8	1.8	1.9
Government enterprises.....	2.9	2.8	3.3

<sup>1</sup> Employment covers wage and salary employees, self-employed, and unpaid family workers; Federal, State, and local general government employment and private household employment are excluded.

Source: Department of Labor.

### *Import Restrictions and the Domestic Price Level*

For a country to benefit from trade liberalization, it is not necessary that its trading partners also have liberal policies, although worldwide trade liberalization would, of course, yield still greater benefits both here and abroad. But the opportunity to obtain some goods at lower cost through exchange for exports rather than through domestic production provides net gains to our consumers and to U.S. industries which use imports as raw materials, whether that opportunity arises from lower-cost production or from subsidized production in other countries.

Import restrictions tend to aggravate inflation by limiting the total supply of goods to the domestic market. When imports are free to expand, some of the excess demand can be diverted from the domestic economy and thus moderate the pressures on the domestic price level. In addition, competitive pressure from imports gives U.S. industries a strong incentive to increase their productivity and cut costs. Such pressure also encourages more competitive pricing, particularly in industries which are highly concentrated.

Nevertheless, experience suggests that progress toward freer trade is more likely to be achieved through reciprocal action than through unilateral moves. The domestic advantages of freer access to imports have usually had to be reinforced by the attraction of better markets for a country's exports. Moreover, a country that imposes fewer restrictions on imports than do its major trading partners makes its industries bear a disproportionate share of the burden of adjustment to changes in the pattern of international trade. The United States has maintained an open market in manmade textiles, for example, while many European countries subject them to quantitative import restrictions.

The benefits of freer trade can therefore be defended most effectively if we not only avoid actions that would unnecessarily deny our consumers access to the lower-cost products of other countries but also keep a careful watch over developments abroad that threaten the achievement of liberal trade policies. The President made this clear in a message to the Congress in December 1970, in which he said:

The Administration remains committed to the objective of expanding mutually advantageous world trade. The record of the United States demonstrates clearly its willingness to assume its obligations in this field. We must continue to do our part, while at the same time defending vigorously the rights of our traders under international agreements.

### REGIONAL TRADING ARRANGEMENTS

One argument cited by proponents of protection against imports has been the rapid expansion of special trading arrangements among groups of countries. Numerous groups of countries in all parts of the world have

initiated special trading arrangements. Although its objectives are much broader, the European Economic Community is the largest and most important such trading unit. The principal grounds for concern about such arrangements are that they may unduly discriminate in favor of trade among member countries, and therefore against trade with the United States and other nonmember countries. The General Agreement on Tariffs and Trade has rules governing these matters, but constant review is needed to ensure that the rules are observed and to prevent adverse consequences for third countries.

#### ENLARGEMENT OF THE EUROPEAN ECONOMIC COMMUNITY (EEC)

The prospective enlargement of the EEC will affect world trading relations substantially. The EEC entered into enlargement negotiations with four other countries in June 1970. If negotiations culminate in the admission of the four applicant countries (Denmark, Ireland, Norway, and the United Kingdom), the combined GNP of the enlarged EEC would be about 60 percent as large as that of the United States, and the total imports of these countries from nonmember countries would be nearly 50 percent larger than U.S. imports. It is anticipated that several other Western European countries would also become associated with the EEC in subsequent negotiations.

The United States has long supported the integration of Western Europe because the broad political gains expected from a strong, united, and outward-looking Europe should exceed whatever economic costs might be incurred. In supporting the enlargement of the EEC for the same reasons, however, the United States has the right to expect that the interests of nonmember countries will be taken fully into account in the process of enlargement and that the policies of the enlarged Community will be responsive to the needs of the world community. With this goal in view, the United States has intensified its consultative arrangements with the EEC.

Enlargement could create significant changes for all U.S. economic relations with Western Europe. Although on balance the effects of the formation of the EEC on industrial trade have so far been favorable, several studies have shown that the EEC's agricultural policies have damaged some major U.S. agricultural exports. The United States is concerned that British entry into the Community at its current high levels of agricultural price supports might lead to further deterioration of U.S. agricultural exports. The solution lies in making the Common Agricultural Policy of an enlarged Community respond better to the needs of both consumers and farmers. Such a change would be to the benefit not only of the member countries but also of efficient outside suppliers. The United States has found over the years that it is better to maintain farm income through direct payments rather than through high price supports.

## GENERALIZED TARIFF PREFERENCES FOR LOWER INCOME COUNTRIES

Another set of basically discriminatory trading arrangements are "special preferences" which the EEC countries grant to imports from selected lower income countries and which the United Kingdom and other members of the Commonwealth grant to each other. Frequently, these arrangements also entail "reverse preferences," whereby the less developed nation opens its market to exports from those developed countries which grant it special preferences. Reverse preferences are maintained in most of the EEC's special preference arrangements and in some of the special arrangements between developed and less developed members of the British Commonwealth. There has been a tendency in recent years for such arrangements to spread, thus undermining still further the principle of nondiscrimination on which the international trading system is based and damaging the commercial interests of countries that are not parties to the arrangement.

Recognizing the need to assist the lower income countries in accelerating their economic growth and to avoid the adverse consequences of selective trading arrangements, the President announced in his speech on Latin American policy in October 1969 that he had decided to press for the adoption by all developed countries of a liberal system of generalized tariff preferences for the exports of all lower income countries.

The decision to pursue this course was based on the belief that the best way to assist the lower income countries is for the developed countries to join in a common effort without seeking special trading benefits for themselves. Establishing a nonreciprocal preference system open equally to all lower income countries will have several advantages. It will enable them to increase their exports and their foreign exchange earnings and thus hasten their economic development; it will reduce the present discrimination among lower income countries that arises from special preferences favoring some countries at the expense of others—notably the Latin American countries—with no preferential access to any developed country's market; and, by eliminating reverse preferences, it will allow the lower income countries to buy from the cheapest source of supply.

In the months following the President's announcement the United States engaged in a series of intensive consultations—both bilateral and multilateral—with the prospective preference-granting countries and with the lower income countries in an effort to work out the details of a preference system.

Eighteen developed countries (including the six members of the European Economic Community acting as a unit) have agreed, subject to necessary legislative authorization, to grant generalized tariff preferences for a temporary period, now set at 10 years, and have made specific proposals. Under the U.S. proposal, most manufactures and semimanufactures (excepting only textiles, shoes, and petroleum products) imported from lower income countries, and a selected list of processed and primary agricultural products

and raw materials, would be admitted duty free. In order to qualify for generalized preferences, lower income countries must provide adequate assurance that reverse preference arrangements will be eliminated within a reasonable period of time. Proposals by the other major developed countries also call for the elimination of duties on a broad range of products. While the proposals of individual countries differ somewhat in their form, they are designed to achieve similar results. In October 1970 these proposals were accepted by the United Nations Conference on Trade and Development as providing a "mutually acceptable" basis for the establishment of a generalized preference system.

## AIDING DEVELOPMENT IN LOWER INCOME COUNTRIES

Stimulation of exports from the lower income countries by means of generalized preferences promises to aid these countries materially; but capital flows, both official and private, must play a major role in the economic development of these nations. While increased trade allows lower income countries to use their existing supply of resources more efficiently, capital flows provide them with additional working resources.

## FOREIGN ASSISTANCE

Although the United States still provides more aid than any other developed nation, net official assistance for development has fallen from \$3.6 billion, or 0.6 percent of GNP in 1963, to less than \$3.2 billion, or 0.3 percent of GNP in 1969. In 1970, there probably was a further slight reduction in the net official flow. However, there are indications that, in line with the President's declared policy, the downward trend in the absolute level of U.S. aid will be reversed. After falling for 3 years, budget authorizations for the portion of gross official flows covered by the Foreign Assistance Act and for other multilateral flows increased slightly in fiscal 1970, and a significant increase has been voted for fiscal 1971.

The fall in the share of our national product devoted to aid has reflected a disillusionment both with the effect of such aid on the growth rates of less developed countries and with the efficiency of our aid institutions. The complexities of the development process were underestimated when the United States first began to assist the less developed world. Aid institutions which were highly successful in implementing the Marshall Plan have lagged in meeting the quite different challenges which lower income countries have recently confronted. On the other hand, there have been some outstanding successes. The economic progress of Israel, South Korea, Taiwan, and several other nations demonstrates that aid can be used efficiently.

The Administration believes that the number of successes can be greatly increased and has assigned high priority to the task of improving the probability of scoring positive gains. In 1969 the President appointed a Task Force on International Development, whose report played an important role in the formulation of his 1970 message on "Foreign Assistance for

the Seventies" with its proposal for a fundamental reform of the U.S. effort. According to this proposal, aid would be divided into three components: development assistance, humanitarian assistance, and security assistance. Because each would be administered through a different organizational structure, responsibilities could be more clearly fixed and the success of each program in meeting its specific objectives could be more easily assessed. The President's message recommends that a much higher portion of American aid be channeled through multilateral institutions than at present. This change would allow greater coordination of international assistance and reduce some of the political frictions associated with bilateral aid.

The President also proposed a major reform in our bilateral aid program. He recommended the creation of two new organizations: a U.S. International Development Corporation to manage bilateral lending activities on a businesslike basis, and a U.S. International Development Institute to manage a portion of our technical assistance and to mobilize private scientific expertise and technology to help solve specific problems of lower income countries. The present Agency for International Development would be phased out; the number of U.S. employees working overseas on development projects would be reduced; and greater reliance would be placed on the information gathered by multilateral agencies.

It is important to ensure that each dollar flowing to recipients is used with maximum efficiency. Currently, the usefulness of international aid is limited by the requirement that a large portion of the funds be used to purchase goods from the donor country, even though the necessary items might be cheaper elsewhere. It is estimated that in many countries these "tying" provisions directly reduce the value of aid by at least 20 percent. In addition, tying may force recipients to engage in projects calling for a high import content, although they would otherwise have low priority and although they draw scarce local resources, both administrative and physical, away from more essential activities. In order to eliminate these serious problems, the President's message recommends that donor countries move together to abolish tying restrictions. A joint effort will mitigate any negative effects on the balance of payments of individual donor countries. Most donor countries have agreed to this principle. The United States has already decided to allow the use of development lending for procurement in any of the lower income countries themselves.

Improvements in the form of our aid and in our institutions represent only one approach to the problem. The impact of aid also depends crucially on the policies of the recipient countries. Thus far, some countries' efforts to use aid effectively have been hampered by a lack of administrative talent and technical skills. To meet this problem it is essential to supplement aid for capital formation with technical assistance. The United States has recognized this need, and in recent years technical assistance has been growing more rapidly than capital assistance, even though it still constitutes a smaller portion of our total aid compared to most other donors. One of the most

important tasks for the U.S. International Development Institute proposed by the President in his Foreign Aid Message will be to emphasize technical assistance and to provide the research necessary for its most effective use. Even efficient technical assistance will do little to help development, however, if the recipient does not have the will to use it effectively. The effectiveness of the recipient's development efforts must therefore be an important determinant of how aid is distributed.

#### PRIVATE CAPITAL FLOWS

In the period from 1962 through 1969, net flows of private American capital to the lower income countries were about 40 percent as large as the official flows. Direct investment constituted more than two-thirds of the total private flow, while the rest consisted of private export credits and portfolio investment.

By the end of 1969 the book value of U.S. direct investment in less developed countries totaled \$20 billion, of which \$7.8 billion was in petroleum and \$5.2 billion in manufacturing. Almost \$12 billion of the total was invested in Latin America, the rest being almost evenly spread among less developed economies in other parts of the Western Hemisphere, as well as in Africa, the Middle East, and Asia.

Because private capital can confer important benefits, the U.S. Government has adopted a number of policies to encourage direct foreign investment in lower income countries in which it is welcomed. The Overseas Private Investment Corporation was created late in 1969. It will take over and expand the Agency for International Development programs to encourage private investment and will provide financial assistance to private enterprises operating in lower income countries. Its lending policies will follow regular business practices, and in 5 years its formal constitution will be reviewed with the possibility of transferring this agency to the private sector.

To the extent that the programs of the Overseas Private Investment Corporation can reduce the risks associated with investing in the underdeveloped world, those with capital will be more ready to consider a wide range of investment opportunities in the lower income countries. These lower income countries, however, will reap the benefits of this and other policies to stimulate private capital flows only if they create an environment that will attract private foreign investment.

In its program to control capital outflows for direct investment, the U.S. Government has discriminated in favor of investment in the lower income countries. Under the 1968 regulations, the formula setting an upper limit to the flow of direct foreign investment to the lower income countries was much more generous than the formula applying to direct investment in developed countries. In addition, not only can the limits be exceeded in special cases, but a company with unused allocations for direct investment in developed countries or Middle East oil-producing countries could reallocate the funds for use in developing nations. As a result of these policies, restraints on direct foreign investment have had little if any adverse effect on flows to the lower income countries.

While most private capital is moved to lower income countries in search of profits, there has also been a significant flow of aid financed by private foundations and other charitable groups. In 1969, this flow amounted to over \$400 million. Private foundations also played a significant role in one of the most dramatic successes among aid programs by contributing to the technological developments culminating in the new varieties of wheat, rice, and other grains which have created the "green revolution." The resulting increase in agricultural productivity greatly heightens the chances of a continual rise in the level of living despite rapidly growing populations. The technological improvement has been so overwhelming, however, that serious adjustment problems are emerging. The benefits do not accrue evenly to the agricultural population, and new job opportunities will have to be created to absorb the labor force released from agriculture. In short, even success can create problems, and this example well illustrates the complexity of the growth process.

### RELATIONSHIPS AMONG INTERNATIONAL ECONOMIC POLICIES

The various issues reviewed in this chapter are best considered, not independently, but in terms of the important interrelationships which tie them all together. U.S. trade policy, for example, must be considered in the light of domestic economic conditions as well as of the responsibilities implied by the key role of the dollar in the international monetary system. The relationship between the United States and the European Economic Community is a major consideration in the formulation of both our trade and our balance-of-payments policies. And generalized preferences for the exports of lower income countries, official aid flows, and private investment in these countries all play an important part in the effort to find the most effective contribution which this country, along with other industrialized countries, can make to the economic development of lower income nations.

In the light of these interrelationships, the President has recently moved to assure coordination at the highest level of all aspects of our foreign economic policy and to provide consistency with domestic economic policy and basic foreign policy objectives. Such coordination and overall direction is to be provided by the new Council on International Economic Policy, of which the President will be Chairman, and whose membership will include the Secretaries of State, Treasury, Agriculture, Commerce, and Labor, the Director of the Office of Management and Budget, the Chairman of the Council of Economic Advisers, the Special Representative for Trade Negotiations, the Executive Director of the Domestic Affairs Council, the Assistant to the President for National Security Affairs, and the Ambassador-at-Large. The newly-appointed Assistant to the President for International Economic Affairs will serve as Executive Director. In announcing the formation of this Council, the President pointed out that its purpose is to deal with the international economic policies of the United States as a coherent whole.