THE ANNUAL REPORT
OF THE
COUNCIL OF ECONOMIC ADVISERS

LETTER OF TRANSMITTAL

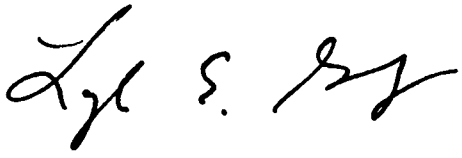
COUNCIL OF ECONOMIC ADVISERS,
Washington, D.C., January 27, 1978.

MR. PRESIDENT:

The Council of Economic Advisers herewith submits its 1978 Annual Report in accordance with the provisions of the Employment Act of 1946.

Cordially,

CHARLES L. SCHULTZE
Chairman.



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CHAPTER 1

Progress During 1977—The Third Year of Recovery

AS THE NEW ADMINISTRATION took office at the beginning of 1977, the economy was turning up strongly from a period of very slow real growth during the latter part of 1976. With the unemployment rate hovering near 8 percent and with inflation still a serious problem, however, the Nation was far from the goals of "maximum employment, production, and purchasing power" established in the Employment Act of 1946. Progress toward these goals was essential to the achievement of rising living standards and greater equality of income and of opportunity. Strong and steady growth in the U.S. economy was also needed to help sustain the pace of economic expansion among the nations of the Western world. An economic stimulus program was therefore designed by the new Administration to keep the economy on a path of recovery at a pace sufficient to reduce the unemployment of labor and capital resources significantly.

In the course of the year, continuing progress was made in closing the substantial gap between actual and potential real output that existed at the beginning of 1977. Real gross national product (GNP) expanded in each quarter at a pace above its long-term potential growth, and the gain in 1977 as a whole amounted to 4.9 percent. By the fourth quarter, real GNP was 5.7 percent higher than it had been a year earlier.

This increase in real output made possible a 4.1-million increase in employment between the end of 1976 and the end of 1977. A temporary slackening in the rate of expansion around midyear limited the midyear reduction in unemployment, but unemployment fell significantly early in the year and again in the later months. The unemployment rate fell to 7.0 percent for 1977 as a whole and reached 6.4 percent at year-end.

The expansion in total output was large enough to permit a substantial improvement in living standards. Real per capita disposable income rose by 4.9 percent during the year. At the same time, the increase in industrial production of 5.6 percent lifted capacity utilization in manufacturing from 81 percent at the end of 1976 to 83 percent at the end of 1977. This increase played an important role in the 9.5-percent advance of corporate profits for the year as a whole.

The pace of economic expansion was exceptionally strong during the early part of 1977. As the year opened, businesses were increasing their production schedules in an effort to rebuild stocks depleted by the unexpectedly sharp rise of consumer spending in the latter months of 1976. The rate of nonfarm inventory investment rose from near zero in the fourth quarter of 1976 to 1 percent of real GNP by the second quarter of 1977, accounting for almost 30 percent of the expansion in real output during the first half of the year. The rise in consumer spending that began in late 1976 continued in the opening months of 1977. With final sales and inventory accumulation both moving up briskly, real GNP in the first quarter increased at an annual rate of 7½ percent (Table 1).

The pace of advance in economic activity early in the year was so rapid that an abnormally cold winter had only a mild transitory effect on overall economic performance. January temperatures were as much as 20 percent below normal in some parts of the country, causing shortages of natural gas and numerous plant shutdowns. Plant closings typically lasted only one to a few days, however, and most of the loss in output was made up before the end of the first quarter.

Construction activity was significantly depressed by the winter weather but rebounded in the second quarter. Government spending also rose sharply. The strength of these two sectors offset a developing weakness in consumer spending, and growth of real GNP in the second quarter remained at a relatively rapid 6-percent annual rate.

During these 2 quarters of large gains in real output substantial progress was made in reducing unemployment. From December to April total civilian employment rose by almost 1½ million, and the unemployment rate fell by 0.7 percentage point. Job gains were widespread among manufacturing,

TABLE 1.—*Growth of real GNP and final sales in 1977*

[Percent change, seasonally adjusted annual rate]

Component	1977					1976 IV to 1977 IV [1]
	I	II	III	IV [1]	Year [1]	
GNP	7.5	6.2	5.1	4.2	4.9	5.7
Final sales:						
Total [2]	3.8	5.1	4.4	6.8	4.7	5.0
Domestic [3]	4.9	5.5	3.6	7.3	5.2	5.3
Private domestic [4]	6.7	4.2	2.9	8.2	5.9	5.5
Change in inventory accumulation (billions of 1972 dollars)	11.5	3.5	2.5	−8.0	3.1	9.5

[1] Preliminary.
[2] GNP other than inventory accumulation.
[3] GNP other than inventory accumulation and net exports.
[4] Personal consumption expenditures, business fixed investment, and residential construction.

Note.—Percent changes based on data in 1972 dollars.

Source: Department of Commerce, Bureau of Economic Analysis.

construction, retail trade, services, and other industries. The length of the workweek in manufacturing also increased.

The rapid pace of expansion in the first half could not have been expected to continue since it was based, in part, on a rebuilding of stocks and a restoration of inventory investment to a more normal relationship with GNP. The slowdown in the rate of expansion during the middle of the year was more widespread and prolonged, however, than could be accounted for solely by patterns of inventory accumulation.

The rise of consumer spending slowed abruptly in the second quarter when the personal saving rate rose substantially. During the first 2 years of the recovery, consumers' purchases of goods and services had risen much faster than their after-tax incomes, so that by early 1977 the fraction of disposable income devoted to saving had fallen to the lowest level in 25 years. Restoration of a more normal allocation of consumer incomes between consumption and saving was inevitable, and the major part of the adjustment took place in the second quarter.

As retail sales faltered, manufacturers adjusted their production schedules promptly to avoid an undesired buildup of inventories—as they had in 1976, when consumer spending also slowed temporarily. As a consequence, demands for labor moderated, and the unemployment rate stopped declining. Total hours worked in nonfarm establishments, which had been rising strongly in the first 4 months of the year, topped out and remained essentially unchanged from May through September; the rise of industrial output during this period slowed to about half the pace recorded in the first 5 months of the year.

The caution exhibited by businesses in their inventory policies was even more evident in their willingness to make longer-term investment commitments. Plans for business capital outlays normally gain increasing strength as rates of capacity utilization and profits rise during the course of an economic recovery. For a time in late 1976 and early 1977 it appeared that the usual cyclical processes were occurring: the real value of contracts and orders for plant and equipment was improving vigorously. Around the middle of the year, however, the rise of this indicator of business fixed investment slowed, and production of business equipment, though continuing to advance, increased at a more moderate pace than earlier in the year.

The hesitancy of business capital spending (which is examined later in this chapter) was singularly disappointing. These outlays, in real terms, have yet to recover their peak levels reached in late 1973 and early 1974. Industrial capacity has therefore been expanding at a very sluggish pace—and at a time when the labor force is increasing rapidly. Over the long run, continuing growth of real output and a stronger rise of productivity will depend heavily on restoring a more vigorous rate of expansion in business outlays for new plant and equipment.

Developments in the foreign sector also restrained the rate of economic expansion. Imports of oil rose substantially early in the year, partly as a consequence of the effects of the cold winter on fuel consumption; and other imports increased more than would have been anticipated on the basis of historical relationships between growth of real output and these imports. U.S. exports meanwhile increased scarcely at all in real terms because of the very slow rate of economic expansion among most of our major trading partners.

The midyear slowdown of economic expansion would have been more serious had it not been for the effects of the Administration's stimulus programs. These programs began to increase government spending and disposable personal incomes by midyear, and their stimulative effects continued to build over the remainder of 1977. Fiscal policy was thus instrumental in the quickening tempo of activity late in 1977.

Signs of an emergence from the pause of 1977 first became evident late in the fall, when new retail sales figures indicated that consumers had begun to increase their purchases of goods in the third quarter. A combination of factors led to a further strengthening of consumer spending during the fourth quarter. Growth in personal income was sustained by rising output and employment in other sectors and was further bolstered by the Federal pay raise in October and by the growing effects of the stimulus programs. With consumer prices increasing at a relatively moderate rate during this period, gains in nominal income were translated into greater purchasing power and rising consumer spending. In the fourth quarter, consumer outlays for durable and nondurable goods, adjusted for inflation, rose at an annual rate of over 10 percent.

This surge of consumer buying—coupled as it was with some improvement in the pace of fixed investment—was not fully anticipated by businesses, whose production schedules were still geared to the slower pace of retail sales that had prevailed earlier. The rate of inventory accumulation therefore declined steeply in the fourth quarter, holding down overall GNP growth to an annual rate of 4.2 percent. It is clear, however, that activity was strengthening as the year came to a close. Employment in the final 2 months rose rapidly, and the unemployment rate fell to 6.4 percent in December.

Failure to make any significant progress on the inflation front in 1977 was a disappointment. (A more detailed analysis of this difficult problem is presented in Chapter 4.) Consumer prices of goods and services other than food and energy, a measure of the underlying rate of inflation, increased by 6.4 percent in the 12 months ending in December 1977, about the same rate as in 1976.

An underlying inflation rate of 6 to 6½ percent has persisted since mid-1975 and is deeply embedded in the wage-cost-price structure. In the nonfarm business sector, compensation per hour—which includes both wages and fringes—in the fourth quarter of 1977 was about 8½ percent

more than a year earlier. This increase in labor cost exceeded productivity gains by about 6 percent and therefore put strong upward pressures on prices. These price increases, in turn, wiped out most of the rise in workers' nominal earnings.

Changes in food and fuel prices during 1977 caused substantial variation in the overall rate of price change from the underlying rate of inflation. In the first half, both food and energy prices were rising rapidly, reflecting the cold winter and the increasing prices of imported foods (particularly coffee, tea, and cocoa). Overall consumer prices increased during this period at an annual rate of 9 percent. As food supplies improved, the rise of consumer prices slowed materially to an annual rate of around 4½ percent in the second half of 1977.

THE ROLES OF THE MAJOR SECTORS OF DEMAND

The sources of economic expansion shifted somewhat during 1977. During the first 2 years of the current economic recovery, household spending for personal consumption and new housing were the principal dynamic elements. In turn, the increase in final demand stemming from these sources prompted a pronounced swing from decumulation to rebuilding of inventories during the first year of the upturn. As the rise of consumer spending moderated last year, growth in business fixed investment and particularly accelerated government spending assumed more important roles in determining the pace of expansion.

PERSONAL CONSUMPTION

The saving rate during 1977 rose considerably, marking a reversal of the pattern of the preceding 3 years. This reversal and the pronounced midyear weakness of consumer spending were due to a number of causes. Some of them have their roots in the forces that had disturbed the economy generally, and the household sector in particular, earlier in the 1970s. High inflation rates eroded the real value of household wealth held in savings at depository institutions and in other nominally denominated forms. Employment growth in the early 1970s was also less steady than during most of the 1960s. These two developments may well have prompted somewhat more cautious consumer behavior and caused higher saving rates. The saving rate reached an exceptionally high level in 1973—the cyclical peak year, which was marked by accelerating inflation and a sharp and largely unanticipated rise in farm income. In the following year of recession, households held the real value of consumption of nondurables and services level while the real value of both durable purchases and saving declined in the face of falling real incomes.

By late 1975 the economy was moving up again, the pace of inflation had abated somewhat from double-digit rates, and household income had been bolstered by tax cuts. As confidence was renewed, consumers were

apparently attempting to regain previously planned consumption levels and to rebuild their stocks of durable goods. Although spending for durable goods rose somewhat erratically during 1976, the overall gain was strong, and the saving rate dropped sharply further from its recession level, reaching a 25-year low in the first quarter of 1977. By then, real per capita consumption was almost 8 percent higher than its cyclical peak in the third quarter of 1973. Once consumption levels had been brought more closely into balance with individuals' plans and anticipated earnings, it became natural for households to resume a historically more normal balance between current consumption and saving for future needs.

A number of nonrecurring factors contributed to the final phase of decline in the saving rate in the first quarter of last year: deferred automobile purchases because of the strike at the Ford Motor Company late in 1976, unusually large estate and gift tax payments, and exceptionally large home heating expenses. The extent of the decline during 1976 and in the first quarter of 1977 was underestimated, however, in preliminary data. More complete data becoming available later in the year made it more apparent that the slowing in consumption growth, which began in the spring, was an inevitable result of the restoration of more customary spending and saving patterns.

The saving rate rose abruptly in the second quarter and more gradually in the following quarters. Surveys of consumers' attitudes showed only a small reduction in consumer confidence in this period. The pattern of consumer expenditures last year also implies sustained confidence. Households continued to invest in durable goods and houses, committing future income to repayments of consumer and mortgage credit. Automobile sales increased to an 11.7-million unit annual rate in the second quarter, just 6 percent short of the rate at the all-time quarterly peak in 1973. New private home sales through the middle quarters of the year were virtually unchanged from the very strong 800,000 annual rate of late 1976 and early 1977, and sales of existing houses also rose substantially during the year. The strength of home purchases and increases in mortgage credit undoubtedly contributed to increased outlays for household durables.

The slower rise in the saving rate in the fourth quarter was coupled with resumption of strong growth in disposable income. These forces led to a vigorous increase in consumption.

HOUSING

The pace of single-family homebuilding was at a record level last year, although the rate of increase of aggregate residential construction expenditures slowed to 15 percent from 22 percent in 1976. Housing starts for the year came to almost 2 million units. Single-family starts totaled a record 1½ million—150,000 more than in any previous year—and the rate was higher at year-end. The demographic determinants of housing demand are

increasingly favoring a high rate of single-family home construction as the post-World War II baby boom population is reaching the childbearing age. Furthermore the demand for single-family homes, which are predominantly owner-occupied, appears to reflect the belief that homeownership is valuable as an investment. The rate of increase of new home prices, exclusive of changes due to quality or size differences, is currently about 11 percent annually, or about 5 percentage points greater than the average increase of other prices. Although part of this price pattern is a temporary response of the prices of new construction materials to strong demand, land prices have also been rising substantially.

In California particularly, and to a lesser extent elsewhere in the country, there was an element of speculation in the housing markets in the early part of the year. An increasing number of homes were being bought by individuals who could not indefinitely carry the mortgages, but who anticipated a speculative profit from a near-term resale. In some areas of Southern California the inflation in new home prices reached a 25-percent annual rate. At first, lenders' willingness to grant mortgages in such cases fueled the speculative surge of construction that was evident early in 1977. The Federal Home Loan Bank of San Francisco, however, took effective steps to dampen the expansion of mortgage credit, and lenders were encouraged to require a commitment from home purchasers to occupy the homes they bought. By midyear both price increases for new homes and new housing starts had slowed in the West.

New starts of multifamily units last year came to 535,000, up 43 percent from 1976 but still well below the 1972 peak of 1 million units. The lower level of unsubsidized multiunit building in recent years results, in part, from the overbuilding that occurred in some regions of the country from 1971 to 1973. Since 1976, multifamily construction has turned up in most of the country as vacancy rates have declined. The Northeast was an exception as outmigration and the prevalence of rent controls have curbed expansion.

INVENTORIES

Inventory accumulation contributed substantially to growth of real GNP in the first quarter of 1977. The rate of accumulation in nonfarm inventories, in 1972 dollars, rose from near zero in the last quarter of 1976 to about $10 billion. Thereafter the rate of nonfarm inventory accumulation rose only moderately further in the second and third quarters and then declined sharply at year-end.

Businesses continued in 1977 to follow the very cautious inventory policies that have typified this expansion. Book values of inventories of nondurable goods rose slightly more rapidly than sales in the second quarter as consumption of nondurable goods slackened. In the summer months, new orders and the growth of production slowed sharply, preventing substantial undesired accumulation of stocks during a period of sluggish sales. The book value

of business stocks therefore rose only two-thirds as much in the third quarter as in the second. Part of this slowdown, however, was due to a reduced rate of increase in prices, particularly for farm products and foods.

NET EXPORTS

The foreign sector has acted as a drag on the speed of expansion in the U.S. economy throughout the past 2 years. In constant dollar terms, U.S. imports in the GNP accounts rose 9 percent last year while exports rose less than 2½ percent. The rise in U.S. real income was, of course, an important factor. Automobile imports rose especially rapidly, reflecting near-record total car sales in the United States. The slow pace of recovery in other countries led foreign producers to compete more aggressively in external markets given their weak demand at home. This also contributed to the strength of U.S. imports and to the weakness of U.S. exports. Hesitant investment abroad lowered demand for capital goods, particularly affecting U.S. export volume, which is heavily dependent on sales of capital goods.

In nominal terms the deterioration of net exports last year was even more dramatic than it was in real terms because of the very high growth of imported oil, whose price has moved up more since the 1972 base date than the average price of other imports or exports. The combination of cold winter weather, petroleum inventory building during much of the year, flat domestic energy output, and rising demand generated a 20-percent increase in oil imports. The cost to the United States for imported oil rose about $10 billion from 1976 to 1977. This increase accounted for approximately 60 percent of the deterioration in the nominal net export position, which swung $9 billion into deficit last year. In addition, price increases in late 1976 and early 1977 raised the cost of commodity imports, particularly coffee, tea, and cocoa.

BUSINESS FIXED INVESTMENT

Business investment in plant and equipment played an important role in the 1977 pattern of expansion. It moved up strongly in the first quarter, rebounding from the effects of strikes at automotive and equipment firms in the fourth quarter of 1976. In the third quarter, the pace slackened, contributing to the midyear pause, but it quickened again in the final quarter of the year. Abstracting from erratic quarter-to-quarter movements, business fixed investment rose, in real terms, by close to 8 percent during the year as a whole—about the same as in 1976.

This component of demand did not begin to recover from the 1974 recession until the final quarter of 1975—one-half year after the upturn in total output. Although investment continued to grow more rapidly than total output during 1977, it had regained by the end of the year only about three-fourths of the ground lost during the recession. This is a weaker performance than in the typical postwar cyclical upswing. The shortfall is discussed in a separate section later in this chapter.

GOVERNMENT SPENDING

Spending by both the Federal and State and local governments was a particularly important source of economic expansion in mid-1977 when the contribution of other sectors to continued growth of output was moderating. The real value of Federal Government purchases had been essentially unchanged during 1976, and in the fourth quarter of that year was only 1 percent above its level at the cyclical trough 7 quarters earlier. In contrast, the real value of Federal purchases rose by 7.2 percent in 1977; the most significant increases occurred in the second and third quarters.

Both the defense and nondefense components of Federal purchases accelerated sharply. The upswing in real defense purchases marked the end of the decline that began in 1969. While defense procurement rose strongly, however, the number of military personnel remained about constant.

The increase of nondefense Federal purchases at midyear was significantly affected by Commodity Credit Corporation (CCC) transactions. Steep declines of farm crop prices led to a large increase from a year earlier in CCC purchases for crops under loan agreements. CCC purchases added about $4½ billion, at an annual rate, to the value of Federal purchases by the third quarter; the pace leveled off in the fourth quarter. These acquisitions represent a transfer from private inventory accumulation to government purchases and do not contribute directly to expanded output. Other Federal nondefense purchases from the private sector, however, also rose in real terms during 1977.

State and local government purchases grew at an annual rate of only 1.4 percent, in real terms, from the recession trough through the end of 1976; but these purchases increased by 3.2 percent during 1977. Earlier in the current cyclical upswing, States and localities were recovering from substantial operating account deficits that had accumulated during the previous downturn. Fiscal positions improved as the recovery proceeded, reflecting increased revenues generated by rising incomes and adjustments in both tax rates and spending patterns. These lagged adjustments moved budgets into substantial surplus by mid-1976.

Beginning in 1977, real purchases by State and local governments rose more notably as a result of their stronger fiscal positions. Their fiscal situations were further improved during the year by significant increases in Federal grants as part of the Administration's stimulus package. This package included an expansion of public service jobs from about 310,000 in the spring to 615,000 positions at the end of the year. About 80 percent of these jobs were with State and local government units. At the same time there were indications that State and local capital formation, which dropped off sharply in 1975 and 1976, was reviving. Construction of educational facilities continued to decline, as children born in the late stages of the baby boom reached adulthood and left school, but housing and redevelopment building, and sewer and water supply construction rose vigorously during

the second half of last year. Many of these projects were assisted by an increase in Federal grants for local public works.

EMPLOYMENT AND UNEMPLOYMENT

Growth in economic activity over the 4 quarters of 1977 was sufficient to generate over 4 million new jobs. Employment increased rapidly in the first half of the year as a result of the strong growth in total output; but as the pace of expansion moderated in the third quarter, employment growth slackened. The midyear slowdown was also evident in total hours of work at nonagricultural establishments in the private goods-producing business sector, which declined during the third quarter when manufacturing production and employment flattened out temporarily. Strong expansion of employment resumed again late in the year.

Gains in employment in the first half of the year lowered the unemployment rate from 7.9 percent in the last quarter of 1976 to 7.1 percent in the second quarter of 1977. Only moderate further progress was made until the fourth quarter, when unemployment began declining again, reaching a 3-year low of 6.4 percent in December.

A major disappointment with respect to our economic performance in 1977 was the unemployment situation of black Americans. Total black employment increased by 4.8 percent from the fourth quarter of 1976 to the fourth quarter of 1977, exceeding the 4.4-percent increase in white employment, but the black unemployment rate remained unchanged at 13.4 percent as the labor force grew rapidly. The unemployment rate for black teenagers rose, however, from 36.6 percent to 38.3 percent. Although labor force growth explains the failure of these unemployment rates to fall, it does not dispel the problem of high unemployment among minorities. Furthermore, the problem for teenagers in particular is unlikely to be corrected merely by expansion of the total economy. Effective structural measures are needed as the recovery continues. This problem is discussed more extensively in Chapter 4.

The distribution of employment gains among sectors was in many respects typical for periods of fairly balanced cyclical recovery. During the year employment in manufacturing establishments grew 4.0 percent, an increase of 762,000 jobs. Contract construction employment grew at a rapid 10.0-percent pace, providing an increase of 359,000 jobs as expansion in that sector remained strong throughout the year. The 3.6-percent rise in employment in the private service-producing industries was slightly slower than the growth in manufacturing, but secular growth in this sector provided an increase of 2 million jobs.

Employment in the government sector grew 2.6 percent during 1977, considerably less rapidly than in the private sector. Federal employment has accounted for a dwindling share of total employment in the past decade and

was virtually unchanged during the year. State and local employment, on the other hand, has been the fastest growing major sector of the economy for the past two decades. From 1953 to 1973 the average annual rate of growth was 4.8 percent. This growth rate declined to 3.3 percent from 1973 to 1976, when the expansion of State and local expenditures was relatively slow. State and local employment grew by 3.1 percent, or 392,000 jobs, in 1977; much of the increase was in the second half of the year. Over 200,000 of the additional jobs on State and local payrolls were financed under the expansion of Comprehensive Employment and Training Act (CETA) jobs that was part of the Administration's stimulus package.

An unusual aspect of employment growth in the past year was a sudden spurt in the number of self-employed workers. After growing at a fairly steady 1.1 percent per year from 1967 to 1976, the number of self-employed workers in the nonagricultural sector increased by 5.6 percent in 1977, accounting for over 10 percent of the net employment growth for the year.

Improvement in the employment situation is also apparent in indicators other than the overall unemployment rate. As jobs became more available, the number of workers who had been unemployed for 27 weeks or more fell from 1.3 million, or 1.4 percent of the civilian labor force, in the final quarter of 1976 to 920,000, or 0.9 percent of the labor force at the end of 1977. The average duration of unemployment fell gradually from 15.5 to 13.9 weeks. Similarly, improvement in labor market conditions resulted in a decline in the fraction of the labor force that were unemployed because they lost their jobs—rather than being unemployed because they were entering or reentering the labor force or had left their jobs voluntarily. The unemployment rate attributable to job loss fell from 3.8 percent at the end of 1976 to 3.0 percent in the fourth quarter of 1977.

The labor force grew very rapidly during 1977, rising by 3.1 percent or 3 million persons between the fourth quarter of 1976 and the fourth quarter of 1977. The number of adult men in the labor force increased 1.9 percent, closely in line with the long-term trend. Unemployment for this group fell from 6.0 percent to 4.8 percent. Employment developments for adult women were sharply different. As their number in the labor force increased by 4.5 percent, the unemployment rate of adult women fell by only 0.7 percentage point to 6.8 percent in the fourth quarter. The teenage labor force grew by 4.6 percent; the unemployment rate of teenagers fell during 1977, but remained a distressingly high 16.7 percent in the fourth quarter.

The role of high labor force participation in rapid labor force growth and slower decline in aggregate unemployment is shown by the rising ratio of employment to the total civilian noninstitutional population of working age—up 1.7 percentage points during 1977 to 58 percent in December. This is a post-World War II record. At the cyclical peak in the fourth quarter of 1973, this ratio was 57.3 percent, when unemployment was 4.8 percent. In 1968, when the unemployment rate was 3.6 percent, the employment to population ratio was considerably lower than in either 1977 or 1973. Hence,

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given the income and career aspirations of broad segments of the population, the economy is confronted with a challenge not only to create jobs but to match workers to employment opportunities.

PRICES AND WAGES IN 1977

The pace of inflation last year was essentially unchanged from 1976, excluding the effects of a few especially volatile factors. The rise in the consumer price index accelerated to 9 percent in the first half of the year, from a 4.8-percent rate during 1976, in response to short supplies of food and strong demands for energy caused by the harsh winter weather. In the second half, however, these forces were absent. Indeed, as the new spring crops came in, wholesale prices of food and farm products declined sharply. As the benefits were passed on to consumers, the rise in consumer prices slowed to an annual rate of 4½ percent in the second half.

Farm supplies are subject to disturbances from weather and these show up in volatile price movements because of relatively inelastic demand for food products. Other prices may also be subjected to shocks that have little to do with the overall balance of supply and demand in the economy. Energy prices are a current example of this phenomenon. For this reason, it is important to look at the movements of price indexes after these special factors have been removed—that is, to look at the "underlying rate" of inflation. This underlying rate, measured by the consumer price index exclusive of food and energy prices, has remained relatively steady in the range of 6 to 6½ percent during almost the entire 3 years of expansion.

The stability of the underlying inflation rate reflects, on the one hand, the continued high levels of unemployment and excess capacity, which have forestalled the acceleration of inflation that has often occurred in the course of extended cyclical expansion. On the other hand, inflationary expectations and institutional characteristics of modern economies have kept the inflation rate from declining. These characteristics are discussed more extensively in Chapter 4.

WAGES, PRODUCTIVITY, AND UNIT LABOR COSTS

During the first year of the recovery, productivity rose faster than its long-run trend, as it typically does in such periods. Since businesses tend to calculate costs on the basis of secular trends in productivity and set their prices accordingly, the rise in prices exceeded that of unit labor costs, and profits per unit of output improved markedly. Since then, the growth of productivity has slowed, and the movements of prices and unit labor costs have been more nearly parallel.

On a year-over-year basis, the rate of change in hourly compensation was essentially the same last year as in 1976. Compensation per hour in the private nonfarm sector showed an 8.5 percent increase, about 0.2 percent less

than in 1976. The rate of growth of private nonfarm productivity, however, slowed substantially to 2 percent. The rise in labor cost per unit of output therefore increased to about 6½ percent.

Hourly compensation increased about 1 percentage point faster than the index of average hourly earnings during the year. The latter measure shows the change in wages exclusive of the effects of shifts of employment among industries and changes in manufacturing overtime; it is often used as a measure of the basic rate of wage increases, though it is only an approximation. About one-half of the difference in 1977 between hourly compensation and average hourly earnings was accounted for by the shift of employment toward high-wage industries. The remaining difference was primarily due to the increase of fringe benefits, included in compensation but not counted in the earnings index. Fringe benefits per hour have risen more rapidly than wages but rose at about the same rate last year as in 1976.

Data on collective bargaining agreements show about 1 percent greater effective wage-rate adjustments than the data for all nonfarm hourly earnings, but also show a rate of increase that was approximately stable between 1976 and 1977. (Effective wage-rate adjustments include wage changes resulting from current settlements, prior settlements, and cost-of-living clauses.) In the 12 months ending in September of last year, the latest span for which data are available, the average effective wage increase for workers included in major agreements covering 1,000 or more employees was 8.3 percent, compared with 8.1 percent in all of 1976.

New collective bargaining agreements concluded last year generally provided for wage increases greater than the 1977 rate of increase of average hourly earnings. Those that were concluded in the first 9 months of last year and included cost-of-living adjustment clauses provided an average annual basic wage increase of 5.0 percent, plus the augmentation from the escalators. If inflation continues at a 6-percent rate, the total annual wage increase would be about 8 percent. Wage increases in contracts without escalator clauses averaged 6.9 percent annually over the life of the contract. These data, however, omit increases in fringe benefits. The data on combined changes in wages and fringe benefits, which are limited to agreements covering 5,000 or more workers, suggest that total labor compensation under collective bargaining agreements probably continued to rise more rapidly than compensation for all nonfarm employees. First-year negotiated adjustments of wages and benefits averaged 9.6 percent last year.

The productivity increase of 2 percent in the private nonfarm economy in 1977, on a year-over-year basis, is approximately in line with the long-run trend. This rate is down from 4 percent in 1976 and during the first stage of recovery in 1975. The growth of productivity is typically greatest in the early quarters of expansion, when overhead labor becomes more fully utilized and the cyclically sensitive and high-productivity industries recover faster than the rest of the economy. The progressive decline in recent produc-

tivity growth was therefore consistent with the usual cyclical pattern. An analysis of long-term trends in productivity growth is presented in Chapter 4.

FOOD PRICES IN 1977

Movements of food prices exerted a major effect on the overall rate of price change during the past year. Between the fourth quarter of 1976 and the fourth quarter of 1977 the consumer price index for food increased 7.7 percent.

The severe freeze in July 1975 that reduced the 1976–77 Brazilian coffee crop by 60 percent was reflected in U.S. food prices in early 1977. Reduced supplies from Brazil, normally the world's largest coffee producer, caused world supplies to decline 17 percent and average retail coffee prices in the United States to increase 54 percent during the first 6 months of last year.

During the middle of last January temperatures in Florida were below freezing for several days, reducing the fruit crop and heavily damaging the vegetable crop. Prices of these commodities escalated rapidly until supplies became available from other areas. Fruit and vegetable prices increased at an annual rate of 24 percent in the first quarter but declined in the third quarter (Table 2).

Abundant supplies of all other food products helped to restrain price changes over the year. Food grain prices declined throughout the year as U.S. farmers harvested a third consecutive large crop. The lower food grain prices were reflected in the modest 4-percent increase from the fourth quarter of 1976 to the fourth quarter of 1977 in the cereal and bakery component of the consumer price index.

Declining feed grain prices prompted significantly increased cattle feeding in the latter months of the year. Total beef and veal production nonetheless declined 4 percent in 1977. The decline would have been larger if the drought conditions in the West and Southwest had not encouraged more rapid slaughtering. Last year marked the third consecutive year of a cyclical reduction in the U.S. cattle herd that has been the deepest in history.

TABLE 2.—*Changes in retail food prices, 1976–77*

[Percent change, seasonally adjusted annual rate]

Consumer price component	1976 IV	1977				1976 IV to 1977 IV
		I	II	III	IV	
All food	0.4	10.0	13.8	4.2	2.9	7.7
Food away from home	3.4	9.2	12.1	7.4	3.8	8.0
Food at home	−.4	10.4	14.4	3.2	2.7	7.5
Meats	−16.7	6.6	11.9	−6.4	6.4	4.4
Cereals and bakery products	−6.2	−1.3	6.9	8.1	3.3	4.1
Fruits and vegetables	22.3	23.7	3.8	−12.8	19.0	7.5
Beverages (nonalcoholic) [1]	32.0	71.0	119.0	20.3	−10.0	41.9

[1] Not seasonally adjusted.

Source: Department of Labor, Bureau of Labor Statistics.

Total meat production, however, was unchanged from 1976, as production of competing meat and poultry products rose to offset declines in beef output. Consumers substituted more abundant pork and poultry for beef products during 1977; as a result there were only modest increases in prices for meat products in general. From the fourth quarter of 1976 to the final quarter of 1977, beef prices rose only 4 percent, pork prices rose 6 percent, and poultry prices increased by 7 percent. Retail prices of dairy products increased 5 percent, largely reflecting the March increase in the support price of milk.

Consumer expenditures on food, exclusive of alcoholic beverages, totaled $218 billion in 1977, of which $180 billion was for domestically produced food products. The value at the farm of the domestically produced foods was $56 billion, unchanged from 1976. The marketing bill—the cost of processing, transporting, wholesaling, and retailing—was $124 billion, more than double the farm value.

The largest expense component of food marketing firms is labor; hourly compensation in this sector increased 8 percent in 1977. Total labor costs ($58.8 billion) exceeded the farm value of domestically produced foods for the first time last year. Costs for packaging materials, transportation, energy, and all other inputs increased over the levels of a year earlier.

OTHER PRICE DEVELOPMENTS

Prices in 1977 for most goods and services other than food and agricultural products moved in a fairly homogeneous fashion. A few exceptions should be mentioned.

At the retail level, energy prices again posed a special problem early in the year, as noted above, although the pace of increase in energy prices slowed slightly later in the year. Prices of houses, both new and old, rose sharply. On the other hand, prices of apparel and household appliances lagged behind the aggregate indexes.

Medical costs, led by physicians' fees and hospital charges, continued to rise at rates substantially above those of other items, and insurance costs have also risen rapidly. This Administration has proposed to try to reduce inflation in hospital costs by negotiation between representatives of hospitals and physicians, insurers, and the government, which now pays more than half of all hospital charges. The initial goal is to reduce cost increases per admission to 9 percent in fiscal 1978.

At the wholesale level, costs of construction materials rose rapidly during most of the year as prices of lumber and other building materials, especially insulation, moved up sharply. These, of course, contributed to the rise in the price of houses. The rise in lumber prices seem clearly associated with the strength in single-family construction activity, which is particularly lumber intensive. Wholesale and retail fuel prices rose significantly early in the year. Paralleling the moderate rise in retail prices of apparel, textile prices rose less rapidly than the overall average, possibly as a consequence of weak

consumer demand and strong worldwide competition as well as of good cotton crops. The pace of inflation has also been relatively moderate for nonpetroleum chemicals, rubber, scrap metals, and most internationally traded commodities. Although many raw industrial commodity prices rose early in the year, possibly as a result of speculation occasioned by fears that inflation would accelerate, increases tapered off and some prices fell in the latter half of 1977. Excess world capacity undoubtedly helped to keep these prices in check.

THE FEDERAL BUDGET AND FISCAL POLICY

Soon after the new Administration came into office, it proposed a series of measures intended to raise the rate of growth in real output in 1977 and 1978 to a pace that would lead to significant reductions in the unemployment rate. The package of stimulative measures that was proposed would have had a 2-year budgetary impact of $31 billion.

Given the lags inherent in the implementation of fiscal policy, however, the new measures did not have an effect until early summer. Indeed, in the first quarter of 1977, fiscal policy was actually contractionary by almost any measure because of the unusually slow growth in Federal spending in combination with a sharp upturn in receipts. For the rest of 1977, however, fiscal policy was more expansive, as expenditures resumed their normal growth and the initiatives in the stimulus package began to take effect.

THE PRESIDENT'S STIMULUS PACKAGE

The Administration's stimulus program had seven components:

1. A one-time $50 rebate on 1976 taxes and $50 payments to social security, supplemental security income, and railroad retirement beneficiaries. The proposed rebates and payments totaled $11.4 billion and were to be payable in the spring of 1977.
2. A simplification and a permanent increase in the personal standard deduction. The existing percentage standard deduction was to be converted to a flat deduction of $2,800 for couples filing jointly and $2,400 for single individuals. This change would have reduced personal taxes by $4 billion a year once it was fully in effect.
3. A choice for business firms between a 2-percentage point increase in the investment tax credit and a new 4-percent credit against employer-paid social security taxes. The business tax cut would have been worth $2½ billion annually when fully implemented.
4. An increase in the number of public service jobs funded under Titles II and VI of the Comprehensive Employment and Training Act from the existing 310,000 to 725,000 by mid-1978.
5. An additional 346,000 positions to be added to the various specialized employment, training, and youth programs under other titles of CETA.

6. A $4-billion increase in the authorization for emergency public works spending beyond the $2 billion already authorized in 1976 by the Local Public Works Capital Development and Investment Act.
7. An increase in the amount of Federal grants made available to States and localities in periods of high employment under the countercyclical revenue sharing program.

These various components of the President's proposal were designed to provide stimulus in both 1977 and 1978. A 2-year program was needed for a continuing improvement in sales and income. Yet it was necessary to preserve sufficient policy flexibility so that the program could be adjusted up or down as circumstances required. The rebate would add immediately to consumer income and therefore allow the stimulus to take effect quickly. The other tax cuts, together with the expansion of CETA jobs, State and local fiscal assistance, and public works, would take effect more gradually, spreading across the last half of 1977 and into 1978. The increases in spending were designed to phase down as unemployment declined; and permanent tax reductions were held to a minimum to allow more time to consider longer-run budget priorities and the desirability of additional tax cuts in conjunction with tax reform.

THE STIMULUS PROGRAM ACTUALLY ENACTED

Review of the economic situation and the stimulus measures by both the Congress and the Administration in the late winter and early spring led to some revisions in the original proposal. In view of the substantial improvement in the rate of expansion of total output and consumer spending in the early part of the year, it was felt that the one-time rebate, which had been designed to give a quick boost to spending, was no longer necessary. The Administration withdrew the proposal in April. In the absence of the rebate for individuals, it was felt that the optional business tax credits were no longer appropriate. The removal of these two items reduced the total size of the Administration's proposed stimulus package by $14 billion.

The tax reduction components of the stimulus program that was enacted were incorporated in the Tax Reduction and Simplification Act of 1977. This bill, which became law in late May, included the following items:

1. A permanent increase in the personal standard deduction to a flat $2,200 for single individuals and heads of households and a flat $3,200 for married couples filing jointly.
2. A nonrefundable employment tax credit for 1977 and 1978 equal to the lesser of one-half the wage or $2,100 for each new employee hired after growth in the firm's wage bill, as specified in the act, exceeds 2 percent. (The wage bill is total wages paid up to $4,200 per employee.) The total credit available for any one year cannot exceed either $100,000 or 25 percent of the firm's Federal unemployment tax base. Unused credits are subject to carry-back and carry-forward rules in effect for the investment tax credit. The employer's normal

tax deduction for wage costs is reduced by the amount of the employment credit.

3. Extension through the end of 1978 of several tax reduction measures enacted in 1975 and 1976: the general personal income tax credit, the 10-percent earned income tax credit for low-income families with dependents, and the reduction in the corporate tax rate from 22 to 20 percent on the first $25,000 of corporate income and from 48 to 22 percent on the second $25,000 (the rate remains at 48 percent for earnings above $50,000).
4. An increase in funds for countercyclical revenue sharing in 1977 and 1978, and an adjustment of the formula under which the funds are distributed to State and local governments to emphasize local unemployment rates.
5. Several miscellaneous changes in the tax code and modifications of provisions in the Tax Reform Act of 1976.

The remaining parts of the stimulus program—the expansion of public works, public service employment, and other employment and training programs—were generally approved as requested in authorizing legislation enacted during the spring of 1977 and funded by the Economic Stimulus Appropriations Act. Table 3 shows the budgetary impact of the program passed by the Congress, on a basis consistent with the Federal budget document submitted in January 1978.

TABLE 3.—*Budgetary impact of the economic stimulus program, national income and product accounts, calendar years 1977–78*

[Billions of dollars]

Program	1977	1978
Total	6.1	16.9
Tax programs:	4.9	9.9
Change in standard deduction and other	3.3	7.4
Business tax incentives	1.6	2.6
Expenditure programs:		
Grants-in-aid to State and local governments	1.2	7.0
Training and youth programs	.0	1.3
Public service employment	.7	3.5
Countercyclical assistance	.5	.6
Local public works	.0	1.6

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

FEDERAL EXPENDITURES IN 1977

Total Federal Government expenditures rose by 9½ percent in 1977 (Table 4), up slightly from the growth in 1976.* As noted earlier, beginning in the second quarter, growth in real Federal defense and nondefense purchases was the most rapid since the mid-1960s and was an important factor in sustaining real growth in the economy during the year.

*Unless otherwise noted, reference is to calendar years and to the Federal sector in the national income and product accounts (NIPA).

Grants to State and local governments grew somewhat less rapidly than purchases. Most of the growth in grants occurred in the second half of the year, in part as a result of the expenditure components of the President's stimulus program. The growth in Federal transfer payments in 1977 was slowed by declining outlays for unemployment insurance; other social insurance expenditures rose enough for benefits to keep pace with the increase in the general price level.

TABLE 4.—*Federal Government receipts and expenditures, national income and product accounts, calendar years 1976–77*

[Billions of dollars]

Receipt or expenditure category	1976	1977[1]
Federal Government receipts	332.3	373.9
Personal tax and nontax receipts	147.3	170.7
Corporate tax accruals	55.9	59.5
Indirect business tax and nontax accruals	23.4	24.8
Contributions for social insurance	105.7	118.9
Federal Government expenditures	386.3	423.5
Purchases of goods and services	130.1	145.4
National defense	86.8	94.3
Nondefense	43.3	51.1
Transfer payments	162.0	173.1
To persons	158.8	169.8
To foreigners	3.2	3.2
Grants-in-aid to State and local governments	61.0	67.6
Net interest paid	27.2	29.5
Subsidies less current surplus of government enterprises	5.9	7.9
Surplus or deficit (—)	—54.0	—49.6

[1] Preliminary.

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

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

FEDERAL RECEIPTS AND THE DEFICIT IN 1977

Federal receipts rose by $41.6 billion in 1977, a somewhat smaller increase than occurred in 1976. The growth was unevenly distributed over the year, with a very large increase in the first quarter and much smaller ones in subsequent quarters. The abnormally large $20.4-billion (annual rate) increase in the first quarter was due to an extra $4 billion in payroll tax increases and a nonrecurring $5.5-billion increase in estate and gift taxes. The additional payroll taxes were the result of the temporary 0.2 percentage point increase in the Federal unemployment insurance (UI) tax rate mandated by the Unemployment Compensation Amendments of 1976, increases in State unemployment insurance taxes—which are counted in the Federal sector—to meet the higher costs of unemployment benefits paid during the recession, and an automatic rise in the taxable wage base for social security. The increase in estate and gift tax collections occurred in response to the revisions made in the Tax Reform Act of 1976. Since gifts were treated more liberally under the old law, there was an incentive to cluster gifts at

the very end of 1976, before the new law came into effect. The receipts were collected in early 1977.

The reduction in the rate of increase in receipts during the remainder of the year reflected the personal and corporate tax cuts enacted as part of the stimulus package. For the year as a whole personal taxes and contributions for social insurance grew the most rapidly. Together they now account for 77 percent of total Federal receipts, compared with 60 percent in 1957. Most of this increase results from legislated increases in social insurance taxes. Periodic tax reductions have maintained the share of personal taxes in total Federal receipts at a fairly constant 45 percent over the past 20 years, offsetting the rise that would have resulted otherwise because of the progressivity of this tax. The total Federal tax share of GNP rose from 19.5 percent in 1976 to 19.8 percent in 1977.

The Federal deficit on a national income and product accounts (NIPA) basis declined in 1977 for the second year in a row, falling to $49.6 billion for the year. This was $9.5 billion smaller than the deficit projected in February, even after adjusting for withdrawal of portions of the stimulus package.

Several tax changes became effective on January 1, 1978, as a result of previously enacted legislation. The wage base subject to unemployment insurance taxes increased from $4,200 to $6,000 per worker. This change is necessary to keep receipts rising in line with the higher unemployment insurance expenditures. The maximum amount of wages subject to social security taxes was also raised from $16,500 to $17,700 and the total tax rate increased from 11.7 to 12.1 percent. The Social Security Amendments of 1977 provide for major increases in social security taxes, but they are not to take effect until 1979 and subsequent years. Finally, the Federal excise tax on telephone service was reduced from 5 to 4 percent.

THE HIGH-EMPLOYMENT BUDGET

Table 5 shows the high-employment Federal budget for recent years. This budget shows the difference between total receipts and expenditures under the assumption that the economy is operating at a constant high-employment level. The use of high-employment GNP as the level of activity underlying this hypothetical budget is a convenient but arbitrary convention. The purpose is to adjust the budget for cyclical changes in the economy, and this could as well be accomplished using any other trend path of GNP. The high-employment budget eliminates changes in receipts that occur automatically in response to the cyclical behavior of output and employment leaving only those changes due to discretionary fiscal policy and to the secular growth of output and prices. Automatic changes in unemployment compensation payments are excluded from high-employment expenditures; expenditures resulting from new programs, including those explicitly for countercyclical purposes, are included.

TABLE 5.—*Actual and high-employment Federal receipts and expenditures, national income and product accounts, calendar years 1970–77*

[Billions of dollars; quarterly data at seasonally adjusted annual rates]

Calendar year	Actual				High-employment			
	Receipts	Expenditures	Surplus or deficit (−)		Receipts	Expenditures	Surplus or deficit (−)	
			Amount	Percent of GNP			Amount	Percent of GNP [2]
1970	192.1	204.2	−12.1	−1.2	201.1	203.8	−2.7	−0.3
1971	198.6	220.6	−22.0	−2.1	209.5	219.4	−9.9	−.9
1972	227.5	244.7	−17.3	−1.5	232.1	243.9	−11.8	−1.0
1973	258.3	265.0	−6.7	−.5	256.6	264.9	−8.3	−.6
1974	288.6	299.3	−10.7	−.8	306.1	298.3	7.8	.5
1975	286.9	357.1	−70.2	−4.6	326.0	350.3	−24.2	−1.4
1976	332.3	386.3	−54.0	−3.2	363.8	381.1	−17.3	−1.0
1977 [1]	373.9	423.5	−49.6	−2.6	401.9	419.8	−17.9	−.9
1977: I	364.9	403.7	−38.8	−2.1	397.1	399.2	−2.1	−.1
II	371.2	411.5	−40.3	−2.2	398.8	407.8	−9.0	−.5
III	373.2	432.1	−58.9	−3.1	399.3	428.4	−29.1	−1.4

[1] Preliminary.
[2] High-employment surplus or deficit as percent of high-employment GNP.

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

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

The restrictive shift of fiscal policy in the first quarter of 1977 and the subsequent expansionary swing are reflected in the high-employment budget. Even excluding the nonrecurring increase in gift taxes, the high-employment deficit fell by $8.4 billion to $2.1 billion in the first quarter. Thereafter it rose to $29.1 billion in the third quarter. From the end of 1976 to the third quarter of 1977 the high-employment deficit rose by $13.0 billion, while the actual deficit rose by only $3.0 billion. The difference is a measure of the extra increase in receipts and reduction in expenditures generated by the cyclical increase in GNP toward its high-employment path.

The change in the high-employment surplus is a convenient measure of whether fiscal policy is moving in a contractionary or expansionary direction. A shift in fiscal policy may result either explicitly from discretionary changes in taxes or expenditures, or implicitly from normal growth in real output and prices, which automatically lifts revenues by more than expenditures. Hence, if fiscal policy is to remain unchanged in its effects on the private economy, regular discretionary reductions in taxes or increases in expenditures are necessary to neutralize this fiscal drag.

The level of the high-employment surplus or deficit consistent with maintaining high-employment output depends on the balance between non-Federal saving and investment that would occur at that level of economic activity. An imbalance must be accommodated by the Federal surplus or deficit, or be corrected by the effects of monetary policy or other measures. There is no given level of the high-employment surplus that is suitable in all situations. In particular, just as a balanced actual budget is often not a desirable objective of fiscal policy, a balanced high-employment budget

will only on occasion be appropriate. As discussed in more detail in Chapter 2, the appropriate level of the high-employment surplus or deficit in the Federal budget depends on the spending decisions of the private sector and of State and local governments, and on the factors affecting the foreign trade balance.

The appropriate path of the high-employment surplus must take into account the movements of actual output relative to the high-employment trend. When the economy is recovering from recession, investment tends to be restrained by both current and past levels of excess capacity, and a more stimulative fiscal policy is necessary to raise capacity utilization. As private demand gains momentum and the economy approaches high employment, the high-employment Federal budget should move closer toward, or into, balance to make room for accelerating private investment. The desirable level and rate of change of the high-employment budget also depend, of course, on the stance of monetary policy and other circumstances specific to any given period.

The high-employment budget should not be interpreted as a precise measure of the Federal sector's impact on the economy. In the first place, different types of taxes and expenditures have widely differing impacts on income and output. For example, an increase in Federal purchases yields larger gains in output than an increase in transfer payments or a reduction in taxes. Similarly, some kinds of tax reductions tend to have a larger stimulative effect than others. Secondly, the effects on aggregate demand of a given tax change will depend on the stage of the business cycle because of the cyclical variability of income shares. Nevertheless, the high-employment budget is a useful simple indicator of the direction of fiscal thrust.

MONETARY POLICY

Short-term interest rates rose fairly sharply from April through October of last year, following an unusual period of downward drift during the first 2 years of the current expansion. Nonetheless, financial markets showed few signs of stress during 1977. Deposit flows to thrift institutions remained fairly high, although some slowing was apparent late in the year. Mortgage credit rose rapidly and there were few signs of tightening of mortgage terms. The volume of new corporate bond issues was down slightly from the preceding year as businesses shifted somewhat toward mortgages and shorter-term borrowing. The yields on new corporate bonds and on long-term Treasury issues rose in the first quarter but then remained stable until late in the year, when a further increase occurred. State and local bond yields drifted slightly lower in 1977, despite a considerable increase in offerings. On balance, the strong liquidity positions and ample cash flow of major lending institutions early in the year limited the upward movement of long-term rates and accommodated substantial credit flows, though at rising costs to many borrowers.

The sharp increase of almost 2 percentage points in the Federal funds rate between April and October was unsettling, however, both because of its speed and because of uncertainties about its implications for the future of interest rates. From March through October the narrowly defined money supply (M_1, the sum of demand deposits and currency) grew erratically but rapidly, averaging a 10-percent annual rate. This was substantially faster than the 6½-percent upper limit of the target growth range announced by the Federal Reserve at the end of 1976 for the year ahead. Consequently, the Federal Reserve moved to tighten the availability of bank reserves, which led to increases in the Federal funds rate and other short-term interest rates.

The unusually rapid growth of M_1 in 1977 was sharply at variance with the pattern of growth during the first 2 years of the current expansion. During that earlier period money growth had been unusually slow relative to nominal GNP. The resulting rapid rise in velocity (the ratio of GNP to M_1) was accompanied by stable or slightly declining interest rates, indicating that the private sector was developing new means for economizing on cash balances (see discussion later in this chapter). Questions arose during the year concerning the possibility that the unusual velocity pattern would not continue. If velocity growth were returning to a historically more normal pattern, further increases in interest rates would be required to hold growth of the monetary aggregates within the Federal Reserve's target ranges.

INTEREST RATES AND SECURITY YIELDS

Movements of virtually all short-term interest rates tended to follow the Federal funds rate during the year, rising from late spring through early fall and then leveling out through December. During the year as a whole the rate on 3-month Treasury bills rose from 4.5 to 6.1 percent. The prime rate charged by banks on short-term business loans followed, rising from 6¼ percent to 7¾ percent. There were, however, reports of shading of the prime rate, as banks sought to expand their business loans.

Long-term interest rates were relatively stable during the year, after declining rapidly in the preceding 2 years. The yield on newly issued Aaa-rated utility bonds averaged 8.2 percent, compared with an average 8.5 percent during 1976. The yield for 20-year Treasury securities rose unevenly from a January low of 7.5 to 7.9 percent in December, but averaged 7.7 percent for the year, compared with 7.9 percent in 1976.

Corporations had no apparent difficulties in marketing new debt issues, for there was ample demand from both financial institutions and individuals wary of common stocks. Although the yield curve became substantially flatter, as short rates rose relative to long, the curve remained positively sloped particularly within the 1-year range. This resulted in part from the fact that bond market participants expected some further rise in short rates.

Interest rates on municipal bonds were an exception to the general pattern of interest rates: yields on lower-rated tax exempt bonds continued to fall. Yields on Baa-rated municipal bonds fell from 6.7 percent in December 1976

to 5.8 percent in December 1977. as investors' fears of municipal bankruptcies abated. Inflation also pushed more incomes into the range where the tax exemption is valuable, and the growth of tax exempt mutual funds offered individuals greater access to the municipal bond market. This downward movement of yields was not shared by the more highly rated municipals: the yield on Aaa bonds fluctuated in a narrow band of 5.1 to 5.3 percent.

Despite relatively stable long-term interest rates and rising profits, many stock prices fell in 1977. The widely quoted Dow-Jones average of selected industrial stock prices fell from 1005 at the end of 1976 to a 1977 low of 801 in early November. The broader New York Stock Exchange composite index fell by 14 percent over the same period. Stocks with low price-earnings ratios and high dividend yields generally did better than others. The securities dealers' index (NASDAQ) rose during 1977 by over 7 percent. There have been a number of reasons for the decline in many stock prices in the face of rising corporate earnings. Fears of unfavorable changes in tax laws, particularly with respect to capital gains taxes, and uncertainties about the final form of other policy measures, such as the energy bill, undoubtedly played a part. The dominant factors affecting stock prices, however, were probably rising interest rates and fears of an economic slowdown.

The condition of the stock market is both a symptom of economic uncertainties and a source of economic problems. A lower value of corporate shares makes it expensive for corporations to raise new equity to finance new plant. It also creates an incentive to use internal funds to buy debt or equity investments, rather than make new investment in real assets. The reduction in wealth may also reduce other components of aggregate demand, and this in turn further reduces the incentive for investing in new plant.

SAVINGS FLOWS, CREDIT AVAILABILITY, AND USES OF FUNDS

Business credit availability remained ample at commercial banks, insurance companies, and pension funds. The latter two classes of institutions have been active lenders in the new issues markets, as the funds available to them rose during 1977.

Although new corporate long-term bond issues were down slightly from 1976, the rise in new commercial mortgages offset this decline. Short-term corporate borrowing from commercial banks and finance companies rose more rapidly in 1977 than earlier in the recovery. Nevertheless, total business borrowing needs remained moderate.

While M_1 growth rates rose during the course of 1977, the growth rate of time and savings deposits at commercial banks (other than negotiable certificates of deposit at large commercial banks) fell. For the 6 months ending in March 1977, the growth rate of these deposits was 15.8 percent, at an annual rate. For the 9 months ending in December the growth rate slowed to 9.3 percent. There was some outflow from State and local savings accounts and growth in personal savings accounts slowed. The rate of sav-

ings flows at thrift institutions slowed late in the year, falling from a 14.8 percent anual rate through October to about 11 percent in the final 2 months of the year. It might have slowed earlier but for the success of the thrift institutions in capturing funds previously held at banks in the "wild card" certificates that were issued in 1973 and matured last summer. As a consequence of continued inflows during the major part of the year, mortgage credit remained readily available.

The continuation of strong savings flows at thrift institutions during most of the year was attributable to several causes. Short-term rates remained below the levels of the previous business cycle peak in November 1973 and were generally below the regulatory ceilings on deposits until late in the year. The response of the public to changes in relative interest rates is likely to be gradual at first and then to gain momentum when interest rates approach or surpass previous peaks.

It is also important that the deposit and liability structure of financial intermediaries has changed substantially since 1973, the last period of credit market tightness. On the deposit side, the institutions rely less on passbook accounts, and more on long-term certificates of deposit. At savings and loan associations, for example, passbook accounts fell from over 50 percent of deposits in late 1972 to under 40 percent in 1977. At the other end of the maturity range, long-term certificates have become more important.

This movement to longer maturities has created a more stable deposit structure. Most obviously, certificate deposits are virtually locked in until the certificate matures, since the penalties for early withdrawal are severe. In addition, the yield curve embodied in the interest rate ceilings imposed by the Federal Reserve (Regulation Q), the Federal Deposit Insurance Corporation, and the Federal Home Loan Bank Board is somewhat steeper than the current yield curve on market securities. As a result, although market rates were above effective ceilings at the shorter end of the maturity range late in the year, ceilings on the long maturity certificates were still above market yields on comparable-maturity government securities.

In previous periods of credit stringency, thrift institutions were also in a poor position to pay rates high enough to attract funds. The average mortgage held by savings and loan associations yielded only 7 percent at the end of 1972. By mid-1977 this had risen to over 8 percent. As a result thrift institutions are better positioned to attract high-cost funds than they were previously.

Reflecting the ready availability of mortgage credit, mortgage borrowings rose sharply in 1977. The substantial excess of mortgage borrowings over the value of new residential construction may indicate that some funds were pulled out of the housing market and used to support consumption expenditures or buy financial assets. By mid-1977, mortgages outstanding had reached 45 percent of personal income, above the historic peak of 44.3 percent reached in 1965 (Table 6). Consumer credit outstanding reached

TABLE 6.—*Mortgage and consumer debt outstanding as percent of disposable personal income, 1974–77*

[Percent]

Period	Debt		
	Total	Mortgage	Consumer
1974	62.4	43.5	18.9
1975	60.3	42.6	17.7
1976	61.3	43.4	17.8
1977: First 3 quarters	63.5	45.1	18.4

Sources: Department of Commerce (Bureau of Economic Analysis) and Board of Governors of the Federal Reserve System.

18½ percent of disposable income in mid-1977, up substantially from 1976 but still below the 1973–74 peak.

Although the total Federal deficit of $45 billion in fiscal 1977, on a unified budget basis, was down from the $61 billion of fiscal 1976, the Federal Government remained a large borrowing sector. This large Federal deficit was substantially offset, however, by the $27-billion surplus of State and local governments (including both operating and social insurance funds) during the same 4 quarters. The total government deficit (on a NIPA basis) was $18 billion for fiscal 1977. In addition, about $25 billion of Federal debt was purchased for foreign official accounts.

State and local government issues continued to grow as marketing became easier. These governments, however, bought more financial assets, primarily Treasury securities, than they sold. Some of the securities purchased were special issues, as State and local governments utilized the limited legal opportunities to issue new tax exempt securities of their own, in advance of maturing issues, investing the proceeds in special taxable Treasury issues.

THE STATE OF THE ECONOMY AT YEAR-END

Prospects for continued expansion were favorable as 1977 came to a close. The sectors of the economy were in good balance, inventories were relatively lean, and the balance sheets of businesses and financial institutions were strong. Nevertheless much remains to be accomplished to achieve the Nation's economic goals. The great resources of the U.S. economy are still incompletely utilized. Since the cyclical peak in the fourth quarter of 1973, growth in real output has averaged 2.3 percent per year. This is an abnormally slow rate of growth for a 4-year period. Capacity utilization in manufacturing still hovers 4 to 5 percentage points below levels that, in the past, have been consistent with high employment, and its low level is contributing significantly to lagging profit growth and a rate of investment that is too low to meet long-run needs.

The unemployment problem remains one of the most critical facing the Nation. Not only is the aggregate rate too high, but the composition of unemployment implies that recovery is bypassing some segments of society. Young people and minorities, in particular, continue to account for a disproportionate share of the unemployed, and continued rapid growth of demand may make only small inroads into this problem. It is important to identify and correct the imperfections in labor markets that limit the employment opportunities of these groups if prosperity is to be equitably shared.

Progress in curbing inflation has also been painfully slow because it has proved difficult to reverse the momentum that develops when past inflation comes to be expected. Stabilizing the rate of inflation is an important first step. Reducing the rate further remains a challenging goal.

Continued and accelerated growth in productivity is also required both as a major contributor to the reduction of inflation, and in order to sustain or enhance the U.S. position in international trade. Stronger growth of investment will be required to achieve this objective, as well as to avoid capacity bottlenecks at future levels of high employment, to accommodate needs for environmental control equipment, and to adapt to changing technological and cost conditions affecting particular areas and industries.

A critical challenge remaining at the end of 1977 is a successful shift toward greater energy self-sufficiency. This must entail both conservation of existing resources of oil and gas and conversion to more abundant alternative energy sources. Passage of the Administration's National Energy Plan and the help of all sectors of our economy in its implementation are the first steps in laying the foundation for secure economic growth over the coming decades.

SPECIAL ISSUES

A number of special issues occupied the attention of economic policy makers and observers during the past year. These issues require separate consideration not only because of their importance for interpreting the events of 1977 but also because of their significance for the entire recovery and for its continuation. These issues include developments in financial markets that affect the uses of money balances and their implications for monetary policy, the ability accurately to control and forecast Federal Government expenditures, and the underlying strength of investment propensities in the U.S. economy.

MONEY GROWTH AND VELOCITY

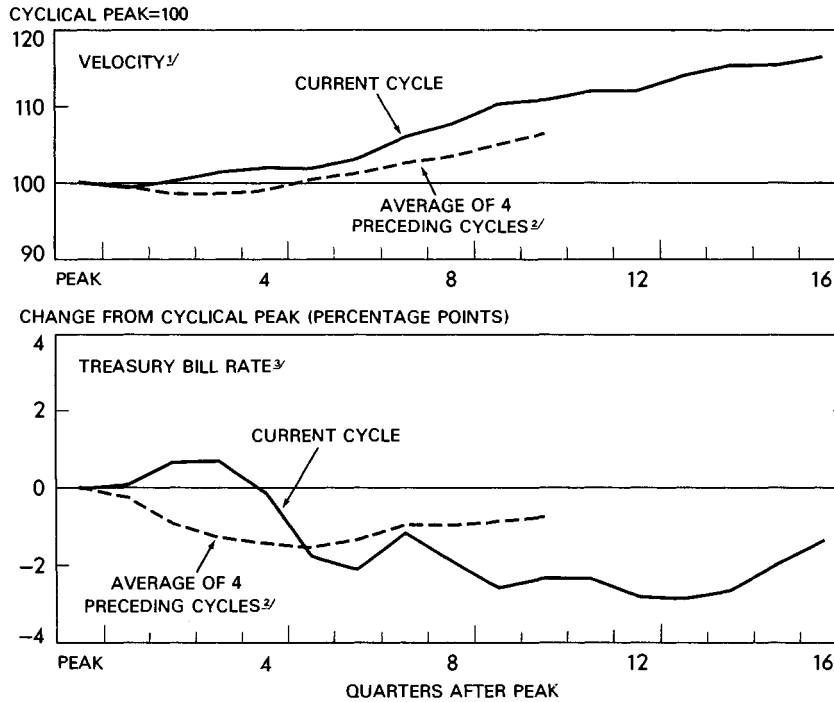
Velocity, the ratio of GNP to M_1, rose by 8.3 percent in the first year of recovery, and by 3.5 percent in the second year, which ended with the first quarter of 1977. These are exceptional increases for a period when interest rates were not increasing. Customarily the increases in velocity during cyclical expansions are in part the result of rising interest rates that lead

to economizing of money balances. Velocity increases during the first 2 years of the current expansion occurred despite declines in short-term interest rates. Thus the behavior of velocity in the current recovery stands in sharp contrast to previous cyclical patterns. This contrast is shown in Chart 1.

Shifts in velocity, or the relation of money demand to income and interest rates, complicate the implementation of monetary policy. For example, a decline in interest rates could indicate a reduction in the public's preferences for money holdings or a weakening in the pace of economic activity. The appropriate response to the former shift might be slower growth in the money supply, while the response to the latter might be more stimulative monetary policy. Developments influencing the relation of money balances to the usual determinants of money demand consequently have significant policy implications.

Chart 1

Velocity and Interest Rates Over the Business Cycle



1/ RATIO OF GNP TO M_1 (DEMAND DEPOSITS PLUS CURRENCY); SEASONALLY ADJUSTED.

2/ SINCE THE SHORTEST PEAK-TO-PEAK PERIOD IS FROM 1957 III TO 1960 II, THE AVERAGE OF THE PRECEDING CYCLES IS CUT OFF ELEVEN QUARTERS AFTER THE PEAK.

3/ MARKET YIELD ON 3–MONTH BILLS.

SOURCES: DEPARTMENT OF COMMERCE AND BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM.

The behavior of velocity in the current recovery cannot be completely explained by the behavior of the factors that usually determine money demand. Most statistical analyses that served to explain money demand in the 1950s and 1960s overpredict money demand for the period from late 1974 through early 1977. Many reasons have been suggested for the apparent downward shift in money demand relative to GNP. The principal cause appears to be changes in cash management techniques of businesses and individuals. Some of the more frequently suggested factors are summarized below:

1. The high interest rates of 1973–74 encouraged the public to institute programs to conserve on money balances. When rates fell, these programs were not dismantled. As a result the amount of money demanded did not return to its earlier relation to GNP.
2. The growth of cash management services offered by banks has reduced corporations' demand for cash. These services allow corporations to keep demand deposits at minimal levels. For example, some banks automatically invest any excess funds in overnight repurchase agreements for some large corporate customers.
3. The growth of negotiable order of withdrawal (NOW) accounts, money market mutual funds, and credit union share drafts has absorbed funds that would otherwise have gone into demand deposits.
4. The growth of corporate and State and local government savings accounts may have absorbed funds from demand deposits.
5. The growing availability and use of overdraft accounts and credit cards have reduced individuals' needs to keep large demand deposit balances. Growing use of telephonic transfers of funds from savings accounts to demand balances and third-party transfer arrangements have worked in the same direction.

The size of these influences is difficult to determine. The volume of new deposit instruments (NOW accounts, money market funds, credit union share drafts, and corporate and State and local government savings accounts) is between 5 and 10 percent of M_1, but some portion of these funds was certainly drawn from sources other than demand deposits. The size of the impact of the other potential causes is largely conjectural.

The broader definitions of the money supply, M_2 and M_3, have shown much less evidence of a shift in money demand. M_2 includes, in addition to M_1, time and savings deposits at commercial banks, other than large negotiable certificates of deposit at large banks. M_3 includes, in addition to M_2, deposits at thrift institutions (mutual savings banks, savings and loan associations, and credit unions).

The growth rates of the more broadly defined money stocks have generally been closer than M_1 to the target ranges set by the Federal Reserve for 1977 From the fourth quarter of 1976 to the fourth quarter of 1977, M_2 grew by 9.6 percent, at the high end of the target range of 7 to 10 percent, and M_3 by 11.6 percent, slightly above its range of 8½ to 11½ percent.

Since April, the behavior of velocity of M_1 has been more generally in line with the trend from the early post-World War II years to 1974. Following the sharp growth of M_1 in the second and third quarters, money growth in the fourth quarter slowed to a 7-percent annual rate. Given the increase of about three-fourths percentage point in short-term interest rates, and the 10.7-percent rate of growth of nominal GNP, this growth in M_1 appears consistent with the relationship between money demand and GNP that prevailed prior to 1974. The pattern of velocity in the last 3 quarters of 1977 may indicate that the effects of structural changes in financial markets are no longer growing, though it is too early to be certain.

FEDERAL SPENDING SHORTFALLS

Federal spending in 1977 fell short of the levels projected in the new Administration's budget. This is consistent with a tendency for the Federal budget in January of each year to overestimate the level of expenditures for the current year. In 6 of the last 8 years, actual spending, as measured in the NIPA accounts, has fallen below the level projected in the January budget by amounts ranging from $0.4 billion to $7.6 billion (Table 7). In fiscal 1977 the shortfall was $13.7 billion, measured from the new Administration's projections sent to the Congress in February. This was 3.3 percent of actual spending.

Although it is desirable to increase efficiency and minimize costs in the provision of Federal Government services, *unanticipated* shortfalls in expenditures can undermine effective implementation of fiscal policy. Shortfalls may have adverse effects on real economic activity because fiscal policy becomes less expansionary, or more restrictive, than was intended when the budget was planned. A number of steps are involved in the formulation and implementation of fiscal policy. Projections are made of the likely course of private demand and nondiscretionary government spending. These are balanced against the economy's supply capabilities. The discretionary changes

TABLE 7.—*Comparison of projected and actual Federal expenditures, national income and product accounts, fiscal years 1970–77*

[Billions of dollars, except as noted]

Fiscal year	Projection [1]	Actual	Actual less projection	
			Amount	Percent of actual
1970	196.0	195.6	−0.4	−0.2
1971	212.4	212.7	.3	.1
1972	238.2	232.9	−5.3	−2.3
1973	259.7	256.2	−3.5	−1.4
1974	286.4	278.8	−7.6	−2.7
1975	324.3	328.7	4.4	1.3
1976	378.7	372.3	−6.4	−1.7
1977	425.5	411.8	−13.7	−3.3

[1] Projections made in the Budget of the United States Government published in January of the current fiscal year, (February Budget used for 1977), adjusted for revisions by applying projected percent changes to revised data.

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

in taxes or spending required to achieve the desired fiscal stance must be determined in light of these projections. Adjustments are, of course, made in the fiscal program by both the Congress and the Administration between presentation of the budget in January and the period to which it applies, which begins 9 months later and ends 21 months later. Nevertheless the process of changing taxes and expenditures is not sufficiently flexible to allow rapid adjustments to unanticipated fluctuations in Federal outlays for basic activities. Reliable expenditure projections are necessary if fiscal measures are to be controllable and effective policy tools.

The magnitude of the effects of shortfalls on the real economy depends on which categories of spending are affected. A shortfall in purchases will have the strongest negative impact because they directly affect economic activity. Underspending in transfers and grants will have a smaller effect, since they are received by individuals and State and local governments, who spend only a part of their receipts. Shortfalls in financial transactions and other asset transfers—which are included in the unified budget, but not in the Federal sector in the national income and product accounts shown in Table 7—have only an indirect effect on aggregate demand. Nevertheless shortfalls in financial transactions do directly affect the size of the total Federal deficit that must be financed by the Treasury. Uncertainties about borrowing requirements resulting from inaccurate estimates of the Federal deficit may be unsettling to financial markets.

The existence of periodic shortfalls may be explained partly by difficulties in forecasting with precision certain key economic and demographic variables that determine spending levels—for example, the rate of inflation and the numbers eligible for various transfer programs. In addition, the timing of legislation necessary to implement parts of the budget may be hard to forecast. In principle, however, there should be no reason why these problems should cause a systematic bias in expenditure estimates.

Nonetheless, there is an apparent upward bias in Federal spending projections. There are several possible explanations for this phenomenon. First, agencies naturally tend to be overly optimistic about their current-year spending estimates, because authorizations for the following year often depend on actual outlays for the current year. Second, there is also a tendency to overestimate the spend-out rates for new program initiatives, both because of the lack of experience with the new programs and because of optimism about their likely success. For example, it was originally estimated that $0.6 billion would be spent on public works in 1977 under the increased authorization contained in the stimulus package. In fact, spending was negligible, although commitments by the Federal Government for specific local projects were completed on schedule. Finally, there are no formal penalties in the Federal budget system for errors in estimating outlays. The spending ceilings in the Congressional Budget Resolutions are a constraint on legislative appropriations but they do not constrain Administration estimates of outlays.

Since these institutional forces are largely beyond effective control, it is likely that administrative agencies will always tend to overestimate outlays. Nevertheless steps are being taken to mitigate this problem. First, there must be regular monitoring and scrutiny of agency budgets by the Office of Management and Budget (OMB) to ensure that their outlay projections reflect the best information available. Revised outlay estimates for fiscal 1978 published last November identified $11 billion in reductions from estimates made the previous July. Second, to the extent that a regular pattern remains in the difference between actual and predicted levels of Federal spending, adjustments can be made to reflect this in fiscal policy decisions. Continuing efforts by OMB, in cooperation with Federal agencies, can result in more reliable estimates and will improve fiscal management.

BUSINESS FIXED INVESTMENT

Real business fixed investment has grown very slowly over the past 4 years in comparison with its performance in earlier business cycles in the post-World War II period. In the final quarter of last year, real investment outlays were 2 percent below their level at the business cycle peak in the final quarter of 1973. At the comparable stage in four previous cyclical recoveries (excluding the 1957–60 cycle, which is too short for comparison), real business fixed investment averaged 14 percent above its level at the previous cyclical peak.

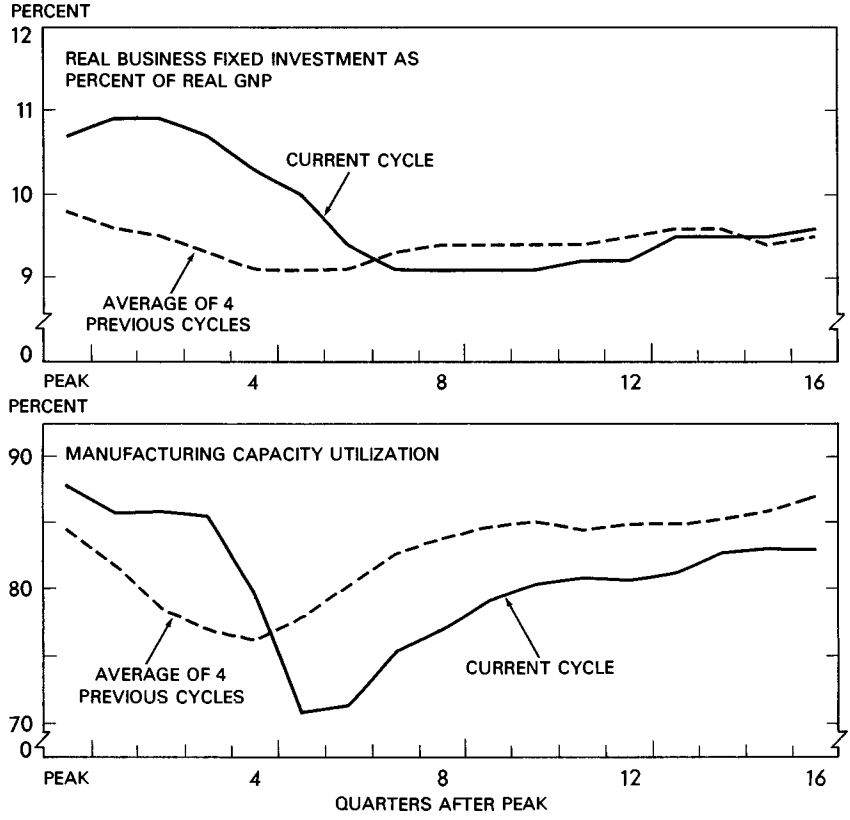
In large measure, the lag of business capital outlays results from the depth of the last recession—the most severe in the post-World War II period—and its effects on many of the determinants of investment. Investment in structures, however, has been significantly below expectations and has pulled down the investment total. Furthermore, surveys of plans for investment in 1978 do not at the present time suggest the strength that would normally have developed after a sustained period of increases in capacity utilization and in profits.

The investment performance in the current expansion is disturbing for two reasons. First, strong investment is needed to sustain economic expansion and keep the economy moving toward high employment. Higher levels of investment spending during the expansion to date would have made a welcome contribution to total demand. Second, sluggish investment implies slow growth of capacity. Although measurement of capacity is necessarily imprecise, estimates of the growth of capacity in manufacturing industries indicate that growth has slowed in recent years. This growth averaged 4.0 percent from 1968 to 1973 and has fallen to 2.9 percent from 1973 to 1977. In view of the large growth of employment needed in the years ahead to reach unemployment targets in the face of rapid labor force growth, a faster expansion of capacity than the 1973–77 pace will be required to avoid capacity bottlenecks at high employment. Investment must rise as a share of total GNP in coming years in order to achieve adequate growth of capacity.

Chart 2 compares the ratio of real business fixed investment to real GNP with its average over four previous recoveries. There has been a sharp decline in this ratio from the unusually high 1973–74 peak. This peak occurred when capacity shortages were providing a strong incentive for investment spending. Investment spending declined more slowly relative to real GNP in the 1974–75 recession than in previous downturns, but its ultimate decline was greater. The recovery of investment relative to GNP was also slower than normal through the end of 1976, 12 quarters after the cyclical peak. The ratio at the end of 1977, however, was 9.6 percent, or 0.1 percentage point above the average of this ratio at a comparable stage of four previous cycles. This comparison overstates the amount of invest-

Chart 2

Investment and Capacity Utilization Over the Business Cycle



NOTE: SEASONALLY ADJUSTED. AVERAGE OF 4 PREVIOUS CYCLES INCLUDES THOSE EXTENDING FROM PEAKS OF 1948 IV, 1953 II, 1960 II, AND 1969 IV.

SOURCES: DEPARTMENT OF COMMERCE AND BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM.

ment that added to capacity, however, because purchases of mandated pollution abatement equipment comprise a larger share of investment than in the past. The ratio of real busines fixed investment, excluding pollution control equipment, to real GNP was about 9.2 percent in 1977.

The bottom panel of Chart 2 suggests that the effect of the recession on capacity utilization is important in explaining the sluggishness in investment. Capacity utilization fell dramatically in 1974–75, to the lowest level for any recession in the postwar period, and it remained at depressed levels longer than in previous cycles. An improvement began in 1975, and the 1976–77 upturn in investment was clearly associated with the further rise in capacity utilization, although the utilization rate remained slightly below its 1955–70 average (Table 8).

Many other determinants of investment also remain below their 1955–70 averages, although they have improved considerably during the expansion. Corporate cash flow fell markedly in 1974 but recovered quite quickly and strongly. Its ratio to GNP in 1976 and 1977 was very close to the pre-1970s

TABLE 8.—*Determinants of business fixed investment, 1955–77*

[Percent]

Year	Ratio of real investment to real GNP	Capacity utilization rate in manufacturing [1]	Nonfinancial corporations			
			Cash flow as percent of GNP [2]	Net rate of return on depreciable assets [3]	Rate of return on stockholders' equity [4]	Ratio of market value to replacement cost of net assets [5]
1955	9.4	87.0	9.3	15.0	6.5	0.931
1956	9.8	86.2	8.9	13.3	5.8	.923
1957	9.7	83.6	8.9	11.7	4.9	.857
1958	8.7	75.0	8.7	9.5	3.8	.873
1959	8.7	81.7	9.2	12.3	4.9	1.047
1960	9.0	80.1	8.9	11.2	4.4	1.022
1961	8.7	77.3	8.8	11.1	4.3	1.151
1962	8.9	81.4	9.4	12.7	5.6	1.092
1963	8.9	83.5	9.6	13.6	6.1	1.205
1964	9.3	85.7	10.0	14.7	7.1	1.292
1965	10.3	89.6	10.4	16.2	8.1	1.356
1966	10.8	91.1	10.3	16.1	8.8	1.203
1967	10.3	86.9	9.9	14.0	7.7	1.214
1968	10.3	87.0	9.4	14.2	7.0	1.259
1969	10.6	86.2	8.6	12.8	6.3	1.127
1970	10.2	79.2	7.9	9.9	5.0	.911
1971	9.7	78.1	8.2	10.4	4.5	1.006
1972	10.0	83.1	8.6	11.5	6.2	1.089
1973	10.6	87.6	8.0	12.3	5.8	1.026
1974	10.7	84.2	6.9	11.3	9.9	.762
1975	9.4	73.6	8.8	9.5	6.1	.750
1976	9.2	80.2	9.1	10.8	5.8	.838
1977 [6]	9.5	82.3	9.0	10.6	5.9	.788
1955–70 average	9.6	83.8	9.3	13.0	6.0	1.091

[1] Federal Reserve Board index.
[2] Cash flow calculated as after-tax profits plus capital consumption allowance plus inventory valuation adjustment.
[3] Profits before taxes plus capital consumption adjustment plus net interest paid divided by the stock of depreciable assets valued at current replacement cost.
[4] After-tax profits corrected for inflation effects divided by net worth (physical capital component valued at current replacement cost).
[5] Equity plus interest-bearing debt divided by current replacement cost of net assets.
[6] Preliminary.

Sources: Department of Commerce (Bureau of Economic Analysis), Board of Governors of the Federal Reserve System, and Council of Economic Advisers.

average. This enlarged cash flow was not devoted to increased investment early in the expansion, however, but was used instead to reduce debt that had risen because of heavy external financing in 1972–73 and the drop in earnings in 1974. By 1977, short-term corporate debt was much lower and liquidity was much improved.

Despite the strong rise in cash flow, the rate of return on depreciable assets shown in the fourth column of the table did not rise correspondingly. An important factor in the early growth of cash flow was a strong increase in depreciation allowances, which contribute to internal funds but are not part of net return. The rate of return on depreciable assets is also lower relative to cash flow in 1975–77 because depreciation allowable for tax purposes falls below replacement cost in periods of inflation. There is a gap of about 2½ percentage points between current levels of the net rate of return on nonfinancial corporate capital and the 1955–70 average of 13 percent. Much of the gap exists, however, because recovery is still incomplete.

Cyclical adjustments can only approximate the effect of differing capacity utilization rates on the rate of return. They suggest, however, that if the rate of capacity utilization in 1977 had been at a high-employment level, the rate of return would also have been improved, though still below high-employment levels prior to 1970. The rate of return has fallen from the high level attained during the mid-1960s, but it appears to be recovering from the depressed periods of the early 1970s, when profits may have been affected not only by slack capacity but also by price controls. Thus, stronger overall performance of the economy holds the promise of raising the return to capital.

Corporation taxes and interest payments are subtracted from the rate of return on depreciable assets to obtain profits earned on stockholders' equity, shown in Table 8. This measure of profits differs from "book value" profits reported by corporations, by excluding inventory profits and measuring depreciation on a replacement–cost basis. In periods of rising prices, profits must also be adjusted to reflect the reduction in the real value of corporate debt that is induced by inflation. This reduction in the real value offsets the part of nominal interest costs that is a premium to compensate lenders for anticipated continuation of inflation. Although these adjustments involve a number of statistical problems, reasonable approximations can be made. As shown in the table, the after-tax return on corporate equity in 1977 approximately matched the 1955–70 average. On a cyclically adjusted basis this profit rate appears to be slightly above the 1955–70 average.

The ratio of the market valuation of the assets of nonfinancial corporations to their replacement cost is a way of formulating the joint roles of financial and nonfinancial influences on investment decisions. The recurrent weakness of stock market values during the recovery, despite rising corporate profits, has strongly influenced this ratio and may indicate unfavorable expectations shared by business managers and investors in

equities. A great variety of factors influence the stock market—including, of course, anticipations of economic growth and profitability and the prospects for all the policies that will influence them. Monetary policy may have an additional, more direct, effect through its influence on the rate of return on alternatives to equity investment.

The ratio of market values to replacement cost has remained considerably below 1 throughout this recovery. This may be an indication that it is more profitable, on average, to buy existing financial assets than to invest in new plant and equipment. At the margin, of course, the ratio of market value to replacement cost may be greater than the average in particular industries or for particular types of equipment. For example, this is likely to be true now for energy-intensive production processes. Old capital may have lost considerable value as energy prices rose, but new energy-conserving equipment could have a much higher value. Thus, enactment by the Congress of a national energy policy that clarifies the long-range relation between fuel prices and the prices of other inputs to production could lead to substantially greater investment than the current average ratio of market value to replacement cost would indicate. Other economic policy measures being proposed, tax measures in particular, may also create more favorable attitudes toward investment in both real and equity assets.

Interest rates on short- and long-term corporate debt and the earnings-to-price ratio on equities both influence the cost of funds to business, and both are likely to influence investment decisions. In the case of interest rates, however, it is the real rate, exclusive of inflation premiums, that is relevant. On an annual average basis the interest rate on long-term bonds less the rate of inflation (an approximation of the real rate of interest) and the earnings-to-price ratio on equities were both higher in 1977 than in 1973. (See Chart 5 in Chapter 2.) They moved in divergent directions between 1976 and 1977—the real interest rate declined slightly while the earnings-to-price ratio rose—but parallel upward movements occurred in the course of 1977.

Studies of investment behavior conducted by the Council in the past year have explored the relation of investment to a number of its measurable determinants—growth of output, capacity utilization, cash flow, the rental price of capital services, and the ratio of the market value of assets to their replacement cost. In order to test whether the relationship of investment to these determinants has changed in the recent period, statistical relationships were estimated by econometric methods for the 1957–73 period. Projections for the period from 1974 through 1977 were generated from many of these earlier relationships. (Not all could be extended through 1977 because of lags in data availability.) These projections produce a wide range of estimates, and all the alternative formulations involve a substantial margin of error. Conclusions about the performance of investment therefore remain uncertain.

It appears, however, that total investment outlays during the expansion have fallen somewhat short of those implied by historical relationships of

investment to its determinants. Investment expenditures fell much more sharply in 1975 than would have been expected and remained depressed for a longer time. Once the upturn occurred, late in 1975, the rate of growth of investment was for a time approximately in line with econometric projections. An unusually rapid acceleration would have been required, however, to make up for the 1975 shortfall and this did not occur. Indeed, the rate of growth appears to have drifted below the projections in the latter part of last year, and surveys taken late last year of the investment planned for 1978 suggest a widening gap.

The components of business fixed investment have differed widely in their behavior during the expansion. The level of investment in equipment was largely consistent with the econometric projections through early 1977. Excluding the effects of strikes in the fourth quarter of 1976, the divergence between actual and projected growth rates was probably well within the margin of error for these projections. Later in 1977, however, the increase in equipment investment appeared to be a bit slower than most of the econometric projections would suggest.

The investment level for structures during the past few years, however, has fallen consistently and substantially below what would have been expected on the basis of all of the econometric projections. Not only was the decline extraordinarily sharp in 1975 but the subsequent recovery was slower than might have been expected. The result has been a widening gap between the actual level of investment in structures and the level that would have been projected on the basis of historical patterns. Since investment in structures accounts for approximately one-third of business fixed investment, its slow growth has had an important impact on the total. In the fourth quarter of last year, real outlays for private nonresidential construction were 13 percent below their level at the end of 1973, while outlays for producers' durable equipment were about 4½ percent higher than at the end of 1973.

A number of possible reasons exist for the lagging investment performance. The perceived risk of investment may have increased in the 1970s as a result of higher inflation rates and larger cyclical fluctuations in output. Although a steady and fully anticipated inflation rate of 6 percent is not inherently riskier than price stability, high inflation rates have historically been associated with larger variations in the rate of price increase, both here and abroad. For this reason, measures to control inflation are important.

Uncertainties about future rates of change of specific output prices and costs are even more likely to affect investment behavior adversely. Changes in energy costs are an obvious example. At least during a period of adjustment, flexibility of foreign exchange rates may also have caused increased uncertainties. Apart from these examples, it is unlikely that other relative prices and costs have become substantially more volatile in recent years.

Uncertainties about future expansion of sales were undoubtedly increased by the depth of the last recession, but they should be abating as the expan-

sion in the United States continues. Excess capacity and slow growth in other industrial countries, together with deep import penetration into a few key industries, may, however, be continuing to restrain business optimism.

Environmental and safety regulations have also been assuming a larger role in decisions regarding investment. The effect is hard to quantify, but there is direct evidence that environmental regulations are more stringent for new installations and may have a particularly inhibiting effect on investment in structures. On the other hand, mandated antipollution investments may actually have raised investment levels from what they would otherwise have been in some industries; this increases aggregate demand but does not enlarge productive capacity.

Finally, it should be noted that during a substantial part of the 1950s and 1960s heavy investments were made in fuel and power facilities that are long lived. Demand for electricity was growing extremely rapidly, stimulating continuous expansion in generating capacity, and the network of natural gas pipelines was also considerably extended. Investment in structures from 1973 to 1976 included outlays for the Alaska pipeline that have now ended. Increased investment by energy-producing industries can be expected in the future; but the timing is uncertain, and in the case of electricity higher energy prices may limit the growth in demand and capacity expansion.

At a time when strong growth in the capital stock is needed to meet future goals, investment appears to be drifting below normal trends. This drift must be reversed. A stable financial environment and tax measures specifically directed to enhancing investment incentives are particularly important. The situation should also be especially helped by progress in the fields of energy and regulation. These measures will be most effective in the context of a steady continuation of overall expansion.

CHAPTER 2

Economic Outlook and Policy

THE ECONOMY is entering its fourth consecutive year of sustained growth, and the prospects for continuation of the recovery in the near term are quite favorable. Final sales were up strongly at the end of 1977, and the effects of last year's stimulus package continue to build, setting the stage for a resumption of healthy production gains in the early part of 1978.

Over the longer term, however, without additional fiscal measures, economic growth would slow below the rate necessary to maintain satisfactory progress toward our goal of returning to high employment. The non-Federal sectors of the economy do not appear to possess sufficient strength on their own to support a sustained high rate of real output growth throughout 1979. In addition, Federal fiscal policy would itself gradually become more restrictive as the spending increases contained in the 1977–78 stimulus package gradually diminish, and as Federal receipts show rapid gains because of income growth and payroll tax increases. While it is difficult to determine precisely when economic growth would slow, the underlying trends in the economy—together with the effects of fiscal policy—point clearly to a reduction in the pace of expansion later this year or early in 1979. Therefore, to ensure that the economy continues to grow at a satisfactory rate in 1979 and beyond, the Administration is proposing a $25-billion tax cut for individuals and businesses to take effect in the fourth quarter of 1978.

ECONOMIC POLICY IN THE NEAR TERM

THE NEED FOR TAX REDUCTION

Personal consumption and housing have been the key sectors leading the economic recovery since 1975. In 1976 and early 1977 the personal saving rate fell well below its average over the past 20 years, and housing starts rose to more than 2 million units at an annual rate by the middle of last year. However, the saving rate has now returned to just under 6 percent and is expected to remain in this vicinity during 1978 and 1979. The boom in residential construction may also be reaching a peak, as interest rates are likely to be somewhat higher in 1978 than in 1977. Hence, these sectors cannot be counted on to sustain above-trend growth in total demand.

Both the foreign and the State and local sectors are currently withdrawing much more from the spending stream than they are returning to it. Our international current account balance is likely to remain in substantial deficit in the near term. Oil imports will continue at high levels over the next several years, and the economies of our major trading partners are expected to show only moderate improvement. In the State and local sector, budgetary surpluses have been rising as receipts have grown more rapidly than expenditures, particularly during the last 2 years. These surpluses are expected to decline gradually, but they will remain high—partly because a significant proportion is the result of secular growth in State and local employee pension funds.

The Federal sector would also have a restraining influence on the economy if there were no further adjustments in fiscal policy. Federal outlays are rising strongly in fiscal 1978, but the increase in fiscal 1979 will be small—less than 2 percent in real terms. Moreover, the combination of higher payroll taxes and rising effective personal tax rates due to inflation and real growth will increase Federal receipts substantially in 1978 and 1979. Hence significant tax reductions are needed just to neutralize the fiscal restraint built into the Federal budget.

Finally, a major uncertainty in the near-term outlook concerns the behavior of business fixed investment. Strong and steady growth of capital spending is essential to continuation of satisfactory growth in aggregate demand and new productive capacity. But the performance of investment has been disappointing thus far in the recovery and plans for increased spending remain modest. In the absence of tax reductions, the usual strengthening of investment plans that takes place during an economic upswing might not occur.

THE ADMINISTRATION'S TAX PROPOSALS

There are three main components of the Administration's proposed tax reduction.

1. A $17-billion net reduction in individual income taxes, effective October 1, 1978. Tax reduction is achieved by substituting a $240 per capita credit for the existing $750 personal exemption and the general tax credit, and by reducing personal tax rates.
2. A $6-billion net tax reduction for businesses in the form of permanent rate cuts on corporate profits and a liberalization of the investment tax credit. The corporate tax rate would be lowered from 20 percent to 18 percent on the first $25,000 of profits, from 22 percent to 20 percent on the next $25,000, and from 48 percent to 45 percent on profits above $50,000. These changes would take effect on October 1, 1978. There would be a further 1-percentage point reduction in the tax rate on corporate profits above $50,000 on January 1, 1980, thereby lowering this rate to 44 percent. In addition, the 10-percent investment tax credit on investment in equipment would be made perma-

nent and extended to industrial and utility structures; the full 10-percent credit would be available for investment in specified pollution abatement facilities that also qualify for accelerated depreciation; and the investment credit could be used to offset 90 percent of tax liability in any one year. Except for the last proposal, these changes in the investment credit would become effective January 1, 1978.

3. A $2-billion cut in payroll and excise taxes. The 4-percent telephone excise tax, already being phased out, would be repealed on October 1, 1978. In addition, the Federal unemployment insurance tax rate would be lowered from 0.7 percent to 0.5 percent on January 1, 1979.

The $25 billion in tax reductions proposed by the Administration is net of $9 billion in revenue-increasing reforms of the tax structure. The reform elements of the program are discussed in detail in Chapter 5 of this *Report*.

The proposed tax reductions, together with the projected increases in Federal expenditures and the effects of the 1977 tax cut, will result in a $5-billion net increase in the high-employment Federal budget deficit between calendar years 1977 and 1979. The personal tax reduction will augment after-tax incomes of individuals and increase the demand for consumer goods. The strengthening of these markets will in turn improve the prospects for business investment spending. Moreover, the cut in corporate tax rates will increase cash flow of business enterprises, and the changes in the investment credit will directly lower the cost of new capital investment. The reduction in excise and payroll taxes will lead to a modest lowering of price levels, as well as providing fiscal stimulus.

MONETARY POLICY

Under current economic conditions, monetary and fiscal policy can reinforce each other in fostering stable economic growth and the increased rate of investment needed to avoid the emergence of capacity limitations in the future. Interest rates moved up early in 1978; a level of short-term interest rates moderately higher than in 1977 would be consistent with a normal cyclical expansion of demands for money and credit relative to supplies. If the rise in short-term interest rates is limited, long-term interest rates may change very little. The prospects for relatively stable long-term rates are greatly enhanced by the fact that supplies of both labor and capital are sufficiently ample to permit rising aggregate demand to be translated into real growth in output rather than a higher rate of inflation. The growth in monetary aggregates that will be consistent with this favorable interest rate environment will depend significantly on factors affecting velocity, which were discussed in Chapter 1.

THE OUTLOOK FOR 1978

Growth of real output during 1978 is expected to be in the 4½- to 5-percent range if the proposed tax cut is approved by the Congress (Table 9). Expansion in the first half of the year will be sustained by higher spend-

ing for public service employment and public works programs and by larger than normal tax refunds. By midyear the effects of the jobs programs will have reached their peak, but consumer spending and business investment are expected to accelerate in the second half in response to the tax reduction.*

TABLE 9.—*Key economic measures, 1977–78*

[Seasonally adjusted, except as noted]

Measure	Unit	1977 IV[1]	Forecast range 1978 IV	Percent change
Real GNP	Billions of 1972 dollars[2]	1, 361	1, 422 to 1, 429	4½ to 5
Real personal consumption	do	876	914 to 918	4¼ to 4¾
Real business fixed investment	do	130	139 to 141	7 to 8
Real residential construction	do	60	59 to 61	−1 to 1½
Real government purchases	do	277	287 to 289	3¾ to 4¼
Unemployment rate	Percent	6. 6	6 to 6¼	(3)
Consumer price index[4]	1967=100	185	196 to 197	5¾ to 6¼

[1] Preliminary.
[2] Annual rates.
[3] Not applicable.
[4] Not seasonally adjusted.

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

The rate of inflation is expected to be close to 6 percent in 1978. Food and fuel prices, which rose sharply in the first half of last year because of the severe winter weather, will contribute much less to the increase in prices this year. Continued slack in labor markets and the absence of a large number of significant collective bargaining settlements will help moderate the rate of increase in workers' average hourly earnings. On the other hand, federally mandated increases in labor costs will add about one-half percentage point to the price level during the year. Widespread cooperation with the President's program of deceleration would make it possible to reduce inflation to the lower end of the range shown in Table 9.

The projected growth of output this year should expand the number of jobs by about 2¾ million. The extent to which this increase in employment is translated into a reduction in the unemployment rate will, of course, depend on how rapidly the labor force grows. It is expected that labor force growth will remain relatively high, at a rate between 2¼ and 2½ percent in 1978. The unemployment rate should decline by about one-half percentage point over the year.

BUSINESS FIXED INVESTMENT

Business fixed investment is expected to become a stronger force in the expansion of output during the course of 1978 as a consequence of the

* Unless otherwise noted, growth rates in this chapter are measured from fourth quarter to fourth quarter.

stimulative effects of the proposed liberalization of the investment tax credit, and the reductions in personal and corporate income taxes. An increase of 7 to 8 percent in real terms is anticipated over the course of the year. The most recent Department of Commerce survey of plans for new plant and equipment expenditures indicates that investment spending in nominal terms will rise only 10 percent in 1978, year over year. However, if allowances are made for increases in capital goods prices of about 5½ percent and for underestimates in the last two surveys, this survey would imply a real increase in spending for plant and equipment of 6 to 7 percent. The recent behavior of some important leading indicators of investment activity suggests a stronger investment performance than the plant and equipment survey does. Data on the value of new orders for nondefense capital goods, new plant and equipment projects started by manufacturers, and their new capital appropriations all show increases of 20 percent or more (annual rate) over the last half year.

As the dimensions of the energy program become more certain and the new tax proposals increasingly influence business expectations, it is anticipated that plans for plant and equipment outlays will be raised above their current levels.

GOVERNMENT DEMAND

Government purchases will be an important source of support to the expansion this year. In real terms, they are expected to rise about 4 percent. Though defense purchases in real terms were up last year and may rise further, the principal sources of strength this year will be in the Federal nondefense and State and local government areas. Nondefense Federal purchases (excluding Strategic Petroleum Reserve and Commodity Credit Corporation expenditures) are projected to rise 16 percent in current dollars. The real increase in these expenditures should also be large, though it may fall short of the level implied by the nominal projection.

State and local purchases will continue to rise rapidly in the first half of 1978, as Federal grants for local public works and employment programs in the 1977–78 stimulus package increase to their peak levels. Some slowing in the rate of expenditure growth may occur in the second half of 1978; but State and local operating surpluses are large, and these governmental units are therefore likely either to increase purchases or reduce taxes.

PERSONAL CONSUMPTION

Real disposable income will rise more than 5 percent during 1978, after allowing for the impact in the last quarter of the proposed reductions in personal taxes. However, since personal consumption does not fully reflect the impact of tax reductions for several quarters, the saving rate is likely to increase considerably in the fourth quarter. Consumption during the year should therefore grow somewhat more slowly than disposable income—increasing about 4½ percent in real terms; but a strong upswing at year-end

will continue into the first half of 1979. Real growth of demand for durable goods in 1978 will slow somewhat from the 7¾-percent rate of last year, and then strengthen again after the tax cuts.

Smaller projected food price increases in this year, together with generous worldwide supplies of natural and manmade fibers, suggest that price increases for nondurable goods will be modest in 1978. These developments will help stimulate an increase in demand for nondurable goods above the 3½ percent of last year. The demand for heating services is expected to return to more normal levels this winter, a change that could also contribute to the growth of sales of both durable and nondurable goods.

HOUSING

Residential investment is expected to be relatively flat during the year at a level about 5 percent higher in real terms than the average of 1977. New housing units are currently being started at an annual rate of 2¼ million, including a record 1.6 million single-family units. Housing starts should remain at relatively high levels early in the year, but some reduction in single-family starts is expected by year-end. However, favorable demographic factors and relatively moderate changes in the availability of mortgage credit should limit the extent of any decline. Multifamily starts are expected to continue growing throughout the year, as the problems that have recently plagued this sector—low profitability caused in part by rent controls in some areas of the Northeast, and the legacy of overbuilding in other areas, particularly the South—are gradually overcome.

Two other components of residential investment are likely to rise significantly this year: additions and alterations to existing structures, and sales of mobile homes. Additions and alterations represent 14 percent of total residential investment and are responsive to sales of new and existing homes, which have risen about 50 percent since 1975. Mobile home shipments, which peaked at 575,900 in 1972 and declined to 212,700 in 1975, have recently been growing more strongly, reaching a rate of over 300,000 per year at the end of 1977. Further increases above this level are expected in 1978.

INVENTORIES

Production has responded promptly to changes in final sales in this expansion. Hence, except for moderate, unintended increases in nondurable goods inventories in each of the past two summers, the ratio of stocks to final sales in 1976 and 1977 was maintained at a fairly constant level, just under the historical average. Improved inventory monitoring techniques and short delivery lags due to excess capacity will be conducive to stable rates of inventory investment this year. However, accelerated final sales and a downturn in the rate of stockbuilding in the last quarter of 1977 will lead to an upswing of inventory investment in the first half of the year. This will be temporary, and the resulting stimulus is unlikely to be as large as that attributable to the restocking that occurred early in 1977.

The rate of accumulation for all of 1978 is anticipated to average about 1 percent of real gross national product, or just sufficient to expand stocks in line with the growth of sales.

NET EXPORTS

The foreign sector is not expected to contribute significantly to the growth of output in 1978, but neither should it detract from the expansion as it has done in the past 2 years. Since approximately one-third of U.S. exports are capital goods, the generally weak performance of investment in other industrial economies has restrained the demand for U.S. exports. Though real growth in the economies of our major trading partners was disappointing in 1977, it should pick up somewhat this year and improve the prospects for U.S. exports. Growth outside the OECD area is also expected to show some acceleration this year, which should have a beneficial effect on our exports. In addition, there should be a resumption of growth in demand from countries such as Brazil and Mexico, where restrictive actions were taken in the last 2 years to reduce large trade deficits caused by the recession and oil price increases. Given these modest improvements in the world economy, U.S. merchandise exports, after adjustment for inflation, are expected to rise 4 to 5 percent in 1978.

Growth of imports should slow in 1978. Imports other than fuel rose more in 1977 than would have been forecast on the basis of historical relationships between imports and GNP, but this phenomenon is not expected to continue in 1978. The volume of U.S. oil imports should be unchanged this year, compared with a rise of 20 percent last year. Cold weather in the early months of 1977 and a buildup of petroleum inventories last summer contributed to the sharp rise of fuel imports in 1977, but these developments are unlikely to recur this year. Production of North Slope oil averaging about 1 million barrels a day, four times the output available last year, will also restrain the growth of petroleum imports in 1978. The decision of the oil-exporting countries to freeze prices will mean that the value of oil imports will show little change this year. The high level of oil imports will nevertheless continue to be an important factor in the United States' persistent foreign trade deficit.

LABOR FORCE AND EMPLOYMENT

The 4½- to 5-percent expansion of output should increase employment during the year by nearly 3 percent. Given the projected increase in the labor force of 2¼ to 2½ percent, the unemployment rate should fall to a range of 6 to 6¼ percent by year-end. The projections for labor force participation rates of women and teenagers assume continued increases that are above previous historical trends, but somewhat below the unusually large increases of the past 2 years.

It should be noted that projections of labor force growth have not been very reliable in recent years. For example, the 3.1-percent increase in the

labor force in 1977 was substantially larger than most estimates of a year ago. Consequently, unemployment rate forecasts can prove inaccurate even when projections for the growth of output and employment are correct.

INFLATION

Before allowing for the Administration's program for the deceleration of inflation, prices would be expected to rise this year at a rate of 6 percent or somewhat above—the underlying rate for the past 2½ years. The underlying rate is measured by consumer prices excluding food and energy, and it parallels the difference between the rates of increase of productivity and compensation per hour worked. Average hourly earnings and productivity would rise this year by about 7¼ and 2 percent respectively. However, total unit labor costs would rise by more than the 5¼ percent that these figures suggest, partly because privately negotiated fringe benefits are increasing more rapidly than basic wages, and partly because of government-mandated additions to payroll costs. The 15-percent step-up of the minimum wage to $2.65 an hour, and the $6 billion in higher payroll taxes for employers in 1978, will add about 1 percent to labor costs of the private sector. Total compensation per hour including fringes and employer payroll taxes would therefore rise about 8½ percent in 1978, and unit labor costs by 6 to 6½ percent.

A number of special factors will also influence the actual rise of prices in 1978. Implementation of the first stage of the crude oil equalization tax will add 0.2 percent to the aggregate price level at year-end. The recent decline in the value of the dollar in foreign exchange markets will also add to pressures on prices. On the other hand, highly competitive markets for many goods, caused by the weakness of economic recovery abroad and by generally low capacity utilization rates at home, will work against any acceleration of inflation. The food price outlook should also lead to moderation in the rate of inflation this year. Retail food prices rose by 7¾ percent last year, but are expected to increase in 1978 by less than the rise in prices of nonfood commodities and services. This deceleration will help to moderate the increase in the general price level, offsetting the effects of the mandated cost and price increases.

Ample grain stocks and depressed crop prices are currently stimulating pork and poultry production and hence will restrain retail price increases for these items. Large harvests of fruits and vegetables in the second half of last year should assure abundant supplies of these commodities through mid-1978. On the other hand, because cattle herds have been cut drastically and the cost of feed grains is extremely low, increased cattle feeding is likely. This should be reflected in reduced marketing of cattle and more rapid increases in retail prices for red meat in the second half of 1978.

The action of the oil-producing countries in not increasing the price of crude oil will provide modest additional restraint on inflation this year. Repeal of the Federal excise tax on telephone service in the last quarter

of 1978 and the 0.2-percentage point reduction in the Federal unemployment insurance tax in January 1979 will also ease the pressure on prices next year.

The President's request to business and labor to cooperate in a voluntary program to decelerate wage and price increases, discussed in Chapter 4, is expected to help moderate the rate of inflation in 1978. With success of the program, the rate of price increase in 1978 could fall below the level of 6 percent or more that would otherwise occur.

INCOME AND SAVING FLOWS

The combination of 4½- to 5-percent real growth and about 6 percent inflation will cause nominal GNP to grow approximately 11 percent in 1978. Both personal income and corporate profits are expected to rise at about the same rate as GNP.

In the year ahead, the household sector will contribute an increased volume of saving to credit markets, while the growth of household credit demands should moderate. Personal saving will expand by approximately one-third as a result of the projected increase in after-tax income and an increase in the saving rate. Though part of this increased saving will be absorbed by home mortgage and consumer credit, growth in these uses of funds will be less than in 1977. Business credit needs will expand in 1978, but an adequate growth of profits should sustain the flow of internal funds. In the past 2 years gross internal funds have amounted to more than 75 percent of capital expenditures of nonfinancial corporate businesses.

Apart from the usual seasonal fluctuations, the Federal Government's net new issues of securities are likely to change very little between the latter half of 1977 and the first half of this year. Toward the end of 1978, however, new funds raised by the Federal Government will increase, since the decline in receipts resulting from the proposed tax reduction will be only partially offset by the growth of revenues that normally occurs in an expanding economy.

A greater volume of funds will flow through credit markets this year, primarily because the higher net household saving must be channeled to the debtor sectors to meet growing financial needs. As noted earlier, these increased credit flows are likely to be accompanied by a somewhat higher level of interest rates than in 1977, particularly on short-term securities. Given current economic prospects, however, there need not be large or unsettling changes in interest rates during 1978.

THE OUTLOOK FOR 1979

Forecasting more than a year ahead is a hazardous exercise, since uncertainties about probable economic developments grow with the passage of time. Nevertheless some general comments can be made about the

likely state of the economy in 1979 and its response to the Administration's tax proposal.

The $25-billion tax cut effective in October 1978 will provide the necessary impetus to extend the recovery into its fifth successive year. Business investment should be particularly strong in 1979, since capacity utilization rates will have risen further, and the effects of the tax cuts will have been incorporated into plans for plant and equipment expenditures. Consumer spending will be supported by the $17-billion reduction in personal taxes. And there is likely to be a further reduction of State and local surpluses.

If the recovery proceeds along these lines, and there are no severe unexpected shocks, real output in 1979 should increase at about the same rate as in 1978—that is, by 4½ to 5 percent. Moreover the unemployment rate should continue to decline to a range of 5½ to 6 percent by year-end as a result of another 2¾-million increase in the number of jobs.

Price forecasting beyond a year is even more difficult than projecting output. Before taking into account any effects of the Administration's deceleration program, the underlying rate of inflation would be close to 6 percent or slightly above in 1979. Government-mandated cost and price increases will be smaller than in 1978. The proposed repeal of the telephone excise tax and the reduction in the Federal unemployment insurance tax would also help restrain price increases.

On the negative side, there are other factors that could lead to stronger pressures on wages and prices in 1979. First, labor markets may tighten somewhat as a result of continued economic expansion, and this could increase the upward momentum of wages. Moreover, 1979 will also be a heavier year of collective bargaining: agreements covering 3½ million workers will expire or will be open to negotiation in 1979, compared with agreements covering 1¾ million workers in 1978. Second, healthy domestic demand could push the manufacturing capacity utilization rate to higher levels by late 1979 and encourage firms to increase their profit margins by raising prices. The stronger growth of investment projected for late 1978 and 1979 should moderate the rise in utilization rates, however, and the availability of ample capacity abroad for production of most major materials should also act as a restraint on price increases above general cost trends.

Most important to the long-run improvement of inflation will be the cooperation of business and labor in the program of gradual deceleration of prices and wages. There must be a well-coordinated, good-faith effort on the part of both sides if progress is to be made in unwinding the inflationary pressures inherited from the past. Next year will pose a critical test for the new program because of the heavy calendar of collective bargaining and the fact that utilization rates for both labor and capital will have risen substantially.

POLICY REQUIREMENTS FOR THE LONGER TERM

Upon taking office in early 1977, this Administration set out specific objectives for economic growth and the reduction of unemployment. Putting these goals explicitly on the record serves the important purposes of informing the Congress and the public of the Administration's policy objectives and identifying the means by which they will be pursued. Setting explicit goals also disciplines the formulation and execution of policies, and creates a system of early warning signals for midcourse policy adjustments.

The Administration's longer-term goals for the domestic economy can be simply stated: steady progress toward the achievement of a high-employment economy, with the benefits shared widely by all major groups in society; principal reliance on growth in the private sector to promote economic expansion; and a gradual reduction in the rate of inflation. The President's budget for fiscal 1979 sets out annual projections for real gross national product, the unemployment rate, and the rate of inflation through 1983. For 1978 and 1979 these numbers represent the Administration's "best-guess" forecast and are consistent with the tax and spending policies proposed in the budget. Beyond 1979 they are not a forecast, but projections of the path of real output necessary to achieve steady reductions in the unemployment rate of about one-half percentage point per year.

Projections in the budget show real GNP reaching its potential by late 1981 and the unemployment rate dropping below 5 percent. If the economy is to achieve high employment by 1981, a sustained expansion of real output of nearly 5 percent a year will be required.

ACHIEVING THE U.S. ECONOMY'S POTENTIAL

Potential output is an estimate of what the economy could produce at high rates of utilization of the factors of production—labor, capital, and natural resources. The historical series for potential GNP was completely revised in the 1977 *Economic Report* by the previous Council of Economic Advisers, and the level in 1976 was lowered by 4 percent. There were two principal reasons for this downward revision. First, the rate of secular productivity growth implicit in the earlier estimates was substantially reduced. This change reflects the deceleration of productivity since the late 1960s. Second, the high-employment unemployment rate was adjusted for changes in the age-sex composition of the labor force. This benchmark unemployment rate is calculated to be 4.9 percent in 1977, compared with 4.0 percent in 1955 (Table 10). The present Council has reviewed the new estimates and concluded that they are a major improvement. Through additional research, the quality of our potential GNP estimates should continue to improve in the future.

For the next 4 years, real potential GNP is projected to grow at a rate between 3.3 percent and 3.8 percent per year, and to rise to between $1,610 billion and $1,640 billion in 1981 (Chart 3). The benchmark unemploy-

TABLE 10.—*Potential gross national product and benchmark unemployment rate, 1952–77*

[Billions of 1972 dollars, except as noted]

Year	Potential GNP	Actual GNP	GNP gap (potential less actual)	Benchmark unemployment rate (percent)
1952	584.9	598.5	−13.6	4.0
1953	608.2	621.8	−13.6	4.0
1954	629.7	613.7	16.0	4.0
1955	651.4	654.8	−3.4	4.0
1956	673.9	668.8	5.1	4.0
1957	697.2	680.9	16.3	4.0
1958	721.3	679.5	41.8	4.0
1959	746.2	720.4	25.8	4.1
1960	771.9	736.8	35.1	4.1
1961	798.6	755.3	43.3	4.1
1962	826.4	799.1	27.3	4.1
1963	857.1	830.7	26.4	4.2
1964	890.3	874.4	15.9	4.3
1965	925.0	925.9	−.9	4.4
1966	960.8	981.0	−20.2	4.5
1967	996.3	1,007.7	−11.4	[1] 4.4
1968	1,031.7	1,051.8	−20.1	4.4
1969	1,068.3	1,078.8	−10.5	4.4
1970	1,106.2	1,075.3	30.9	4.5
1971	1,145.5	1,107.5	38.0	4.6
1972	1,186.1	1,171.1	15.0	4.7
1973	1,228.2	1,235.0	−6.8	4.8
1974	1,271.7	1,217.8	53.9	4.8
1975	1,316.9	1,202.1	114.8	4.8
1976	1,363.6	1,274.7	88.9	4.9
1977	1,412.0	[2] 1,337.6	[2] 74.4	4.9

[1] Shift in benchmark unemployment rate from 1966 to 1967 because of 1967 change in sampling procedure in the Current Population Survey.
[2] Preliminary.

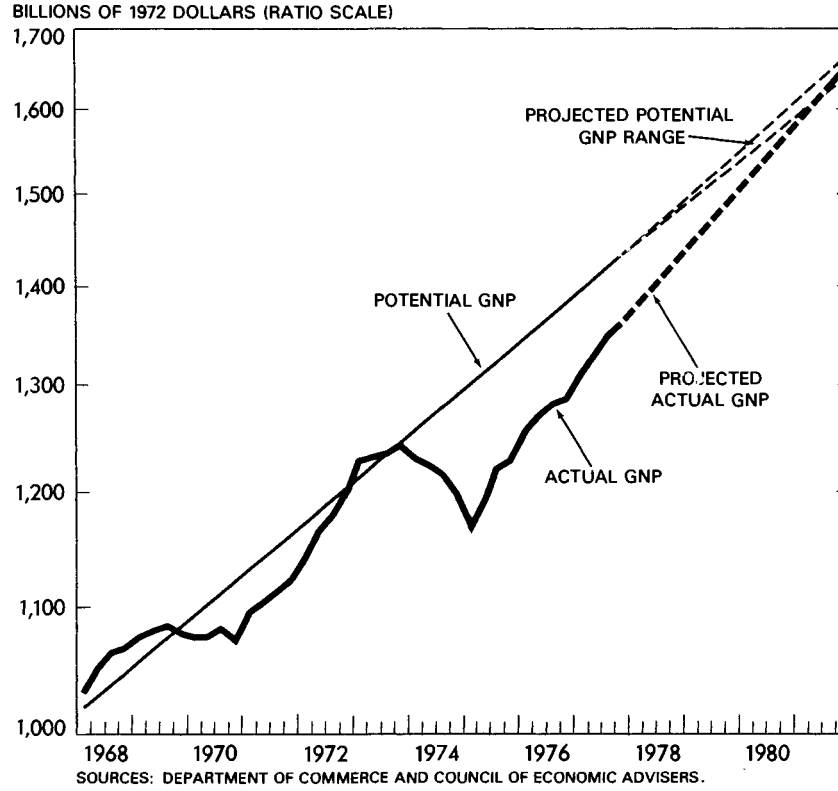
Sources: Department of Commerce (Bureau of Economic Analysis) and Council of Economic Advisers.

ment rate associated with this range of potential GNP estimates would fall slightly from its current level to about 4.8 percent.

In addition to the usual uncertainties about the future, forecasts of potential GNP under current conditions are subject to a wide margin of error. The principal source of uncertainty in projecting potential output lies in estimates of productivity. The abrupt decline in the level of productivity in 1973–74, which is much larger than can be explained by cyclical factors, has not been reversed. Improvements in productivity since the recovery began early in 1975 have followed normal cyclical patterns: gains have exceeded long-term trend rates of growth, but have not been large enough to close the gap opened up by the 1973–74 recession. Future productivity growth will be strongly influenced by additions to the capital stock. Unless investment shows a marked acceleration in the next few years, the trend rate of productivity growth is unlikely to regain the pace of the 1950s and 1960s. If the recent modest increases in output per hour persist over the next 4 years, potential GNP growth will probably be nearer the low end of the projected range. On the other hand, if labor force participation should continue to rise at unusually rapid rates, as it did in 1977, or if productivity growth should resume its earlier pace, the rate of potential GNP growth would be closer to the upper end of the range.

Chart 3

Actual and Potential Gross National Product



SOURCES: DEPARTMENT OF COMMERCE AND COUNCIL OF ECONOMIC ADVISERS.

LONG-RUN BUDGETARY STRATEGY

The Administration has frequently indicated its determination to maintain control over the growth of Federal expenditures, and to rely principally upon growth in the private sector as the major source of economic expansion in the years ahead. The share of Federal outlays in GNP during the past 3 years has been between 22 and 23 percent—well above the 18- to 21-percent share that characterized the previous two decades. In part, the higher share in recent years reflects the fact that GNP is still well below its potential level. But the increase is also a result of rapid growth in Federal transfer payments and grants to State and local governments during the last 10 years.

Decisions about the level and composition of Federal expenditures are particularly difficult. Many essential national goals—such as national defense, equal opportunities, a fair distribution of income, support for basic research, and preservation of natural resources—can only be reached

through Federal programs. Government expenditures, however, are not subject to the discipline of the market place. Private markets are imperfect, but they do tend to encourage efficiency in the use of resources by rewarding firms that are most efficient and eventually weeding out those that cannot perform effectively. These market functions must be accomplished in government by budgetary planning that stresses careful choice of priorities and efficiency in the use of our Nation's scarce resources. Placing limits on the overall growth of Federal expenditures is an effective tool for maintaining such control.

This Administration, after careful review of national priorities, has concluded that the Federal Government can respond effectively and compassionately to the needs of the country within a carefully managed and closely controlled budget. The path of expenditures projected in the fiscal 1979 budget reflects this judgment. Budget outlays are projected to increase by less than 2 percent in real terms between fiscal 1978 and 1979. This restraint on expenditures is also carried into the future; over time, outlays will be steadily reduced to about 21 percent of GNP.

Managing the Federal budget to meet national needs, while gradually reducing the share of Federal outlays in GNP, has important implications for economic policy. If the course of Federal spending is determined by these principles, tax reductions then become an important device for maintaining a stable rate of growth in the private sector. Tax reductions work quickly to stimulate spending, and the effects tend to spread quite broadly over the various sectors of the economy. Moreover, they can be designed to emphasize either stimulus to consumer spending or growth of business investment, depending on the particular circumstances that prevail. Tax reductions are thus a powerful and flexible instrument of economic stabilization policy.

Over the course of the next several years, the amount of reduction in income taxes needed to keep the economy moving ahead steadily will depend on a variety of factors, including the course of monetary policy, the degree of drag from the foreign and State and local sectors, and the willingness of consumers and business to spend. It will also depend on other aspects of the Federal budget. Higher payroll taxes for social security and unemployment insurance are scheduled to take effect in 1978 and 1979, as shown in Table 11. In addition, inflation and economic growth will push individual taxpayers into higher tax brackets, raising the effective tax rate on personal income. The Administration's proposed reduction in personal income taxes would approximately offset the effects of these increases on individual tax payments. In 1977 the share of personal income absorbed by Federal personal taxes and the contributions of employees and the self-employed to the social security system was 14.3 percent. This share will show a small decline by 1979 if the Administration's tax proposals are enacted. Total Federal revenues as a percentage of GNP, on the other hand, will rise slightly over this period. The size of the new tax package, however, was not

TABLE 11.—*Projected effects on Federal receipts of selected tax changes, national income and product accounts, calendar years 1978–81* [1]

[Billions of dollars]

Tax increases or reductions [2]	1978	1979	1980	1981
Payroll tax increases	7.0	14.9	15.0	29.6
Social security and unemployment insurance [3]	6.9	7.5	5.0	8.9
Social Security Amendments of 1977	.1	7.4	10.0	20.7
Proposed tax reductions	6.9	27.4	27.9	29.2
Individuals [4]	4.1	19.7	18.9	21.0
Business [5]	2.4	5.7	7.2	6.7
Unemployment insurance	0	.8	.9	1.0
Telephone excise	.4	1.2	.9	.5

[1] All projections based on the path of GNP, incomes, and unemployment assumed in the Budget of the United States Government, Fiscal Year 1979.

[2] Entries are cumulative differences in tax levels above those that would prevail under 1977 tax rates.

[3] Social security rate increases of 0.4 percent in 1978 and 0.5 percent in 1981. Increases due to automatic social security base changes are not included. Changes in unemployment insurance (UI) taxes are due to 1978 increase in the Federal taxable wage base, expanded coverage of the UI system, and estimated adjustments in effective State UI tax rates.

[4] The amount of tax reduction for individuals shown here differs from the amount estimated by the Treasury on a liability basis. The principal reason for this is that the tax reduction provisions of the proposal would take effect on October 1, 1978, while the reform provisions would not take effect until January 1, 1979. Since withholding schedules would be adjusted in October 1978 to reflect the amount of net tax reduction, refunds would be required in 1979 to compensate for over-withholding in 1978. Refunds are treated in the national income and product accounts on a collections rather than a liability basis.

[5] Includes tax reductions for individuals due to changes in the investment tax credit.

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

designed to achieve a particular ratio of tax revenue to income, but to ensure satisfactory progress toward our economic goals. This requires taking into account a number of factors, including developments on the expenditure side of the Federal budget.

As noted in Chapter 1, the simplest measure of the *total* fiscal impact of the Federal sector on the economy is the change in the high-employment budget. As shown by the $9-billion increase in the high-employment deficit in calendar 1978 (Table 12), the Administration's enacted and proposed tax

TABLE 12.—*Projected high-employment Federal receipts and expenditures, national income and product accounts, calendar years 1977–81*

[Billions of dollars]

Item	1977	1978	1979	1980	1981
Receipts	401.9	447.0	488.5	547.7	619.9
Expenditures	419.8	473.9	511.1	557.3	594.8
Surplus or deficit (−)	−17.9	−26.9	−22.6	−9.6	25.1

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

reductions, together with the expenditure path projected in the budget, result in a substantial net increase in fiscal stimulus. In 1979 the high-employment deficit declines slightly, indicating a moderately less expansive fiscal stance as the economy improves. Over the 2-year period 1977–79, the Federal budget provides $5 billion of net fiscal stimulus. Beyond 1979, total

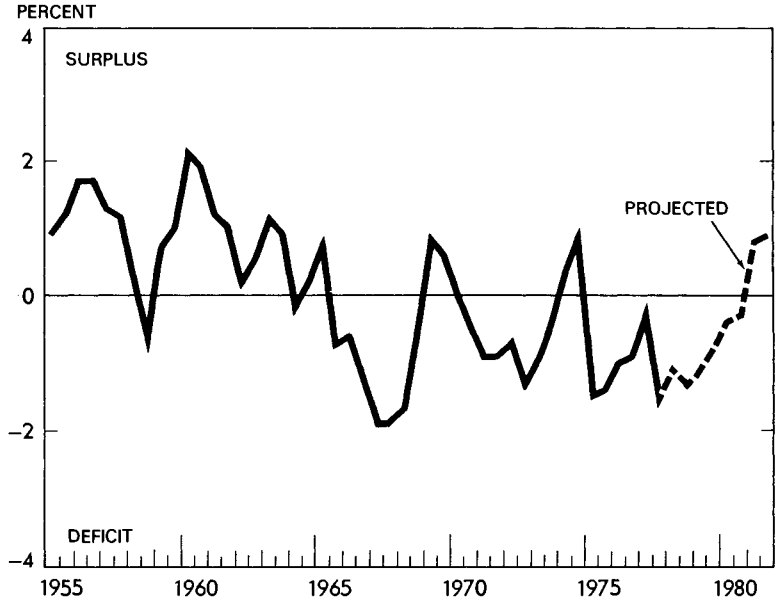
tax revenues would rise more rapidly than expenditures; and in the absence of additional tax reductions or changes in expenditure programs, a high-employment surplus of $25.1 billion would exist by 1981 (Table 12 and Chart 4). The actual path of the high-employment budget after 1979 will, of course, depend on fiscal policy decisions yet to be made.

THE BUDGET AND THE ECONOMY OVER THE LONGER RUN

Whether the economy can actually achieve high employment in 1981 with a balanced Federal budget depends upon the strength of the non-Federal sectors of the economy. Our ability to forecast economic developments over a period of 4 years is, however, extremely limited. One alternative to developing an explicit economic forecast for 1981 is to examine the distribution of saving and investment by sector in past periods of high employment. For the economy as a whole, the net saving (excess of receipts over expenditures) in one or more sectors must be offset by net investment (excess of expenditures over receipts) in the remaining sectors. What one economic unit saves, another unit must invest. An analysis of how saving and investment might be distributed at high employment provides some insights about the prospects for balancing the budget over the next several years.

Chart 4

High-Employment Federal Surplus as Percent of High-Employment GNP



NOTE: HALF-YEARLY DATA ON NATIONAL INCOME AND PRODUCT ACCOUNTS BASIS, SEASONALLY ADJUSTED.
SOURCES: DEPARTMENT OF COMMERCE, OFFICE OF MANAGEMENT AND BUDGET, AND COUNCIL OF ECONOMIC ADVISERS.

Table 13 shows net saving by major sectors of the economy in three past periods of relatively high employment and in 1977. Some interesting patterns emerge from these data.

First, net private saving in a high-employment economy has typically been rather small. Investment in plant, equipment, and inventories by businesses, together with investment in new residences, is generally about equal to total saving by individuals and business enterprises.

TABLE 13.—*Net saving by sector, national income and product accounts, selected calendar years, 1955–77*

[Billions of dollars]

Sector	1955–56 average	1965–66 average	1972–73 average	1977 [1]
Non-Federal sectors	−5.2	0.6	12.0	49.6
Private sector	−3.5	3.3	−6.6	1.4
Personal	17.3	31.6	59.8	67.8
Business [2]	−20.7	−28.3	−66.4	−66.4
Other sectors	−1.8	−2.7	18.5	48.3
State and local government	−1.1	.2	13.4	29.2
Foreign [3]	−.7	−2.9	5.2	19.1
Federal sector	5.2	−0.6	−12.0	−49.6

[1] Preliminary.
[2] Corporate and noncorporate business saving, plus the statistical discrepancy, less gross private domestic investment.
[3] Net capital grants received by the United States less net foreign investment.

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

Second, in 1955–56 and again in 1965–66, the total net saving attributable to State and local governments and the foreign sector was also near zero. As a result, in these periods a Federal budget that was approximately in balance was consistent with a high-employment economy. Indeed, 1965–66 was a period in which real GNP was above its potential level and pressures on prices were mounting. In this situation a surplus in the Federal budget would have been appropriate.

Third, in recent years the aggregate net saving by State and local governments and the foreign sector has become very large. In 1977, net private saving was again near zero, but a Federal deficit of nearly $50 billion was required to counterbalance the aggregate surpluses of State and local governments and the excess of receipts over expenditures stemming from our international trade and payments. Since economic activity in 1977 was well below its potential, an even larger Federal deficit would have existed in a high-employment economy last year, given the substantial volume of net saving in the non-Federal sectors.

The trend toward significant positive net saving by State and local governments developed in the early 1970s, when the secularly rising surpluses in their employee retirement accounts began to dominate their aggregate budget positions. In addition, surpluses in their operating accounts (exclusive of the social insurance trust funds) have risen sharply in the last 2

years as a result of rapid increases in Federal grants, growth in tax receipts from economic recovery, and slow growth in expenditures. Economic and demographic factors are such that continued growth of the trust fund surpluses in the foreseeable future may be expected. Moreover, a sudden reversal of the conservative budgetary policies in evidence since the last recession is unlikely, so that operating surpluses of State and local governments will decline slowly. Hence, the restraint on the economy resulting from net saving in this sector will persist, though it will probably diminish somewhat over the next few years.

The excess of receipts over expenditures in the foreign sector stems principally from two sources: the continuing heavy dependence of the United States on foreign sources of energy, and differences in the pace of economic expansion at home and abroad that have resulted in a much more rapid increase in nonfuel imports than exports. The National Energy Plan, discussed in Chapter 5, is designed in part to reduce the outflow of dollars, but the reduction will require a period of years. The growth rate differentials between the United States and its major trading partners have persisted since the last recession, and they became especially pronounced last year. These differentials are expected to narrow in 1978 as recovery abroad improves. Recent alignments of exchange rates and the steps announced by Japan to reduce its current account surplus should also help reduce our deficit. However, while some improvement in our external balance may be forthcoming, the foreign sector is very likely to continue to act as a net drain on U.S. income for some years.

Whether we can reduce the Federal deficit to zero by 1981 and still achieve a high-employment economy will depend on how sectoral saving-investment balances change over the next few years—something that cannot be known with certainty at present. Developments in a variety of areas—including monetary policy, fiscal behavior of State and local governments, oil prices, growth rates of the economies of our major trading partners, and foreign trade policies of other countries—will influence the outcome. As the figures in Table 13 indicate, rather marked shifts in net saving by the non-Federal sectors would be required to reach high employment with a balanced budget in 1981. Recognizing that fact means that we must stand ready to provide additional tax reductions if they are needed to keep the pace of economic activity advancing strongly. Should further cuts of significant size prove necessary, the return to a balanced budget would have to be postponed until after 1981.

These fiscal policy decisions for the longer term should not be made at this time. If developments are favorable—if business capital spending grows fast enough to generate significant net investment in the private sector, if State and local surpluses diminish substantially, if the foreign sector deficit improves materially—the need for further tax reductions to sustain continued economic expansion would be greatly reduced. Developments in these

areas would be difficult to predict. Responsible budgetary policy must retain the flexibility to cope with a range of outcomes.

THE ROLE OF MONEY AND CREDIT IN REACHING HIGH EMPLOYMENT

As noted above, the amount of fiscal stimulus required over the next few years will be significantly influenced by the pace of investment in business plant and equipment and in housing.

Investment in business plant and equipment will only be undertaken if rates of return on these assets are favorable in relation to the cost of financing and the returns from alternative financial investments. Among the determinants of business fixed investment discussed in Chapter 1, the rental price of capital services and the ratio of market valuation to the replacement cost of capital assets are the most directly affected by monetary policy, and they are a principal channel through which monetary developments are linked to the real sector of the economy. Monetary policy directly affects the interest rates on short-term and highly liquid obligations, such as Federal funds, Treasury bills, and commercial paper. The rates of return on longer-term debt instruments and equities vary in relation to each other and to short-term interest rates, depending on cyclical developments, inflation, and expectations about the future. Nevertheless these rates tend to influence each other because of the opportunities for both lenders and borrowers to shift their holdings among different types and maturities of financial instruments (Chart 5). Monetary policy, through its direct impact on interest rates for short-term obligations, can influence, but not determine, the cost of financing business investment and hence affect its growth in the years to come.

Monetary policy is also important for the housing sector. Residential construction is highly sensitive to financial conditions—both on the demand side through the mortgage market and on the supply side through construction loans to builders. For the average buyer of a single-family home, the purchase price is about 2 times income. For such a family, an increase of 1 percentage point in mortgage rates would raise the share of income committed to interest payments by about 1½ percent. Hence the state of financial markets will significantly influence the demand for housing and the pace of residential construction.

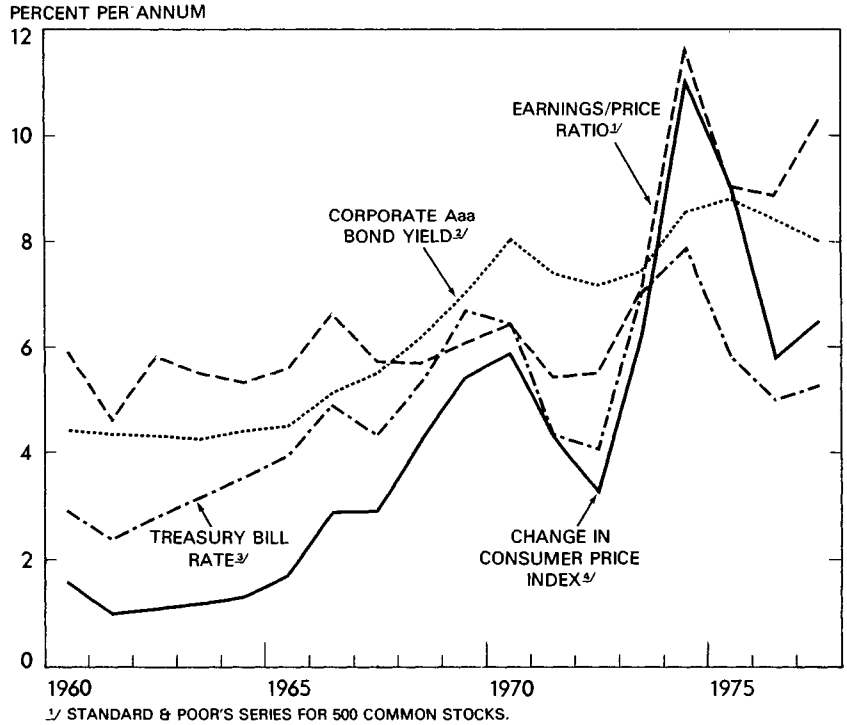
Maintenance of a financial environment conducive to significant increases in investment during a prolonged period of economic expansion is a difficult task, and will require an appropriate balance between monetary and fiscal policy; but it is not without precedent. Between 1960 and 1965, real output grew at a fairly steady rate from a level about 5 percent below potential to a level that was approximately equal to potential. Fiscal policy was stimulative throughout this period, and monetary policy was supportive. The inflation rate was very moderate—1.3 percent per year during the period—and interest rates were quite stable; the short-term Treasury bill

rate rose only 1.02 percentage points during the entire period, while rates on long-term Treasury bonds rose only 0.1 percentage point. This pattern of interest rates was associated with growth in the money supply (M_1) at an average annual rate of 3.5 percent, so that velocity grew about 3½ percent per year, a rate slightly above postwar trends.

Careful management of economic policy will be necessary to reach and maintain high employment in the years ahead. At the present time there are still ample supplies of idle labor and capital resources available. In the period immediatey ahead, growth in real output can therefore proceed at a rate above its long-term trend without risking a resurgence of demand-induced inflation. But fiscal and monetary policies should not attempt to close the remaining output gap at an excessively rapid pace, since this could lead to an unbalanced and unsustainable pattern of recovery. And

Chart 5

Rates of Interest or Return and the Rate of Inflation



1/ STANDARD & POOR'S SERIES FOR 500 COMMON STOCKS.
2/ MOODY'S.
3/ RATE ON 3-MONTH NEW ISSUES.
4/ CHANGE FROM YEAR AVERAGE TO YEAR AVERAGE.
SOURCES: DEPARTMENT OF LABOR, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, MOODY'S INVESTORS SERVICE, AND STANDARD & POOR'S CORPORATION.

as the economy approaches its potential, macroeconomic policies must adjust in order to avoid the creation of excess aggregate demand.

The inflation problem for the immediate future does not stem from excess aggregate demand, but from the momentum of inflation inherited from the past. An inflation rate in the 6- to 6½-percent range is a serious problem and it needs to be lowered while slack remains in the economy. When higher rates of inflation become built into the expectations of the public, however, the process of unwinding the inflationary momentum is a slow and arduous task and one that is only partially amenable to the tools of demand management. If the anti-inflation proposal by the President is widely supported and succeeds in lowering inflation rates, gradually slower growth of the monetary aggregates will be consistent with a strong and healthy economic expansion. Efforts to hasten the process of reducing this inherited inflation rate through restrictive fiscal and monetary policies would, however, be unproductive. Such measures would result mainly in a slowing of real growth rather than a reduction in the rate of price increase.

ECONOMIC GOALS BEYOND 1981

The projections in the budget show the unemployment rate continuing to decline to 4 percent in 1983, in line with the targets embodied in the proposed Full Employment and Balanced Growth Act. A primary objective of this legislative proposal (popularly called the Humphrey-Hawkins bill) is to modify and extend the general principles enunciated in the Employment Act of 1946. That act, which also established the Council of Economic Advisers and requires the President to submit an annual *Economic Report,* gave the Federal Government the responsibility for promoting high levels of employment and output. It established broad economic objectives that have served as useful guidelines for the formulation of macroeconomic policy during the past 30 years. However, the economy has changed in many respects since 1946; the task of making economic policy has become more complex; and the standards for acceptable economic performance have been raised. The Administration therefore believes that an updating of the Employment Act of 1946 is appropriate to deal with the changing economic environment and a new set of policy requirements.

The Full Employment and Balanced Growth Act would require the President to enunciate explicit short-term (2-year) goals and to recommend the fiscal policies necessary to achieve them. It would also require the President to set forth intermediate-term (5-year) goals each year and to present projections of Federal receipts and outlays consistent with them. The target for the overall unemployment rate in 1983, assuming the bill is enacted in 1978, would be 4 percent.

The bill would for the first time explicitly establish the goal of reasonable price stability as a high priority objective of national policy. Moreover it

directs the President to pursue this goal by a variety of measures: an early-warning system to detect emerging capacity problems, stockpiling of agricultural commodities and other critical raw materials to dampen price fluctuations, regulatory reform, vigorous enforcement of the antitrust laws, and the promotion of labor-management cooperation in efforts to boost productivity.

Though the bill sets ambitious economic goals, it is designed to achieve a careful balance among various competing objectives. The potential conflict between low rates of unemployment and inflation is implicitly recognized, and flexibility is retained to adjust the economic strategy. In the third *Economic Report* after passage of the bill, and in any subsequent ones, the President may modify the numerical unemployment goal contained in the bill, or the timetable for achieving it, if he finds such changes necessary.

In recognition of the fact that macroeconomic policies alone are not able to reduce unemployment to acceptable levels, the President is directed to develop, as appropriate, supplementary employment programs to help achieve the long-run unemployment target. There is no requirement that any specific programs be introduced, but those recommended to the President for his consideration include the following: countercyclical employment programs, including public works projects, countercyclical public service employment, and countercyclical revenue sharing; regional and structural employment policies designed to reduce unemployment among specific demographic groups and within depressed geographic areas; youth employment programs; job training and counseling programs to prepare persons for employment in the private sector; and finally, establishment of such additional public or private nonprofit employment projects as are needed to meet the long-term target for the unemployment rate. These additional projects may be created only after an official finding by the President that all other means of reducing unemployment are insufficient. Any new programs would require authorization and funding by the Congress.

The bill requires the Congress to evaluate the President's economic strategy and adopt its own set of goals and policies, which may or may not coincide with those of the President. The Federal Reserve would be required to submit its own plan for monetary policy to the Congress and to explain the relationship between its intended policies and the President's short-term goals. These procedures for establishing and reviewing goals and policies are designed to achieve a better coordination of the actions of the President, the Congress, and the Federal Reserve, and to produce a more coherent set of macroeconomic policies.

The procedures established by the Full Employment and Balanced Growth Act are an important advance beyond the Employment Act of 1946. The bill does not authorize massive new Federal programs. Nor does it impose controls on the economy or create additional governmental institutions. On the contrary, it reaffirms the critical importance of a healthy and dynamic private sector in achieving our long-term goals, and it relies on existing institu-

tions to improve the formulation and coordination of economic policy. While this new framework cannot guarantee a return to full employment and price stability, it should help identify the most serious obstacles and point the way toward rational solutions.

A 4-percent rate of unemployment in 1983 is a very ambitious objective, for it would imply that actual GNP would exceed our present estimates of potential GNP. The major unanswered question regarding this target is whether it can be achieved without creating pressures in labor and product markets that would touch off a new round of inflation. Given the present structure of these markets, it is unlikely that a 4-percent unemployment rate could be achieved through aggregate demand policies alone without at the same time causing a significant increase in the rate of inflation. Responsible policy, however, requires not that we abandon efforts to reach the 1983 unemployment goal, but that we work steadily to reduce the conflict between low unemployment and inflation by developing structural measures to improve the functioning of markets. Chapter 4 discusses in some detail the role of such policies in improving the efficiency of labor markets.

CHAPTER 3

The World Economy—a Hesitant Recovery

THE WORLD ECONOMY in 1977 continued to feel the aftershocks of the 1972–75 period: output remained well below productive potential while unemployment reached new peaks in many countries, inflation continued at high levels, and unusually large imbalances in current accounts persisted. These are problems that are likely to continue to command the attention of policy makers in the coming year. Economic growth in the United States was stronger than that in industrial countries abroad. This difference in growth rates and strongly rising oil imports contributed to the emergence of an unprecedented U.S. deficit on current account transactions. Concern over the U.S. deficit was a major factor leading to a substantial depreciation of the dollar against many foreign currencies, which was especially rapid toward the end of the year.

This chapter focuses on the causes of the hesitant recovery of the world economy from the 1974–75 recession, and on the challenge to the conduct of national economic policies that it represents. Developments in the world economy over the past 5 years are assessed. Then a closer look is taken at developments in 1977—concentrating on the largest foreign industrial countries, which along with the United States set the pace for the world economy as a whole. Finally, the major continuing problems in the world economy that grew out of the disturbances in the first half of the 1970s are assessed, and the Administration's approach to these problems is set forth. Thus the discussion is not a complete catalog of world economic problems or of U.S. international economic policies. One important omission is the long-standing challenge to raise incomes in the poorer countries. U.S. programs specifically directed toward this goal are not examined. Nevertheless, solutions to the problems that are examined—hesitant world recovery, imbalanced international payments, volatile commodity prices, and slow growth of world trade—are crucial to the success of development programs.

ORIGINS OF THE CURRENT WORLD ECONOMIC DISORDER

Although individual countries have from time to time faced conditions similar to today's, the combination of prolonged inflation along with unemployment in many countries and large current account imbalances is a new experience. A first step toward developing policies to deal with the

present constellation of problems is to study how they arose and to sort out what has changed in the world economy and what has not.

The period from the late 1940s to the late 1960s counts as one of the most successful periods of modern world economic history. Successive steps were taken to liberalize world trade. Real incomes in Western Europe grew at an average rate of 4.6 percent between 1955 and 1970. The economy of Japan grew an average of 9.5 percent per year as that economy joined the front ranks of the industrial economies. Major economic gains were also made in many developing countries, and growth in this group averaged 5.1 percent per year. Problems with inflation and with international payments tended to be isolated in individual countries and were tractable. Consumer price increases in the group of developed countries making up the Organization for Economic Cooperation and Development (OECD) were brought under increasingly better control and averaged only 2.6 percent per year from 1961 to 1966.

During the late 1960s problems began to appear. Inflationary tendencies gradually developed as labor and product markets tightened in some countries and wage pressures increased even in economies that appeared to have some slack. The mild recessions that occurred in various countries seemed less able to eliminate the inflationary momentum that had built up in the preceding expansions. In addition, the mechanisms of the Bretton Woods system of par value exchange rates were increasingly unsuited to deal with the imbalances that arose in countries' payments positions. Although these developments posed serious puzzles for policy makers in the late 1960s and early 1970s, the problems seemed manageable. In retrospect, they were dwarfed by later events.

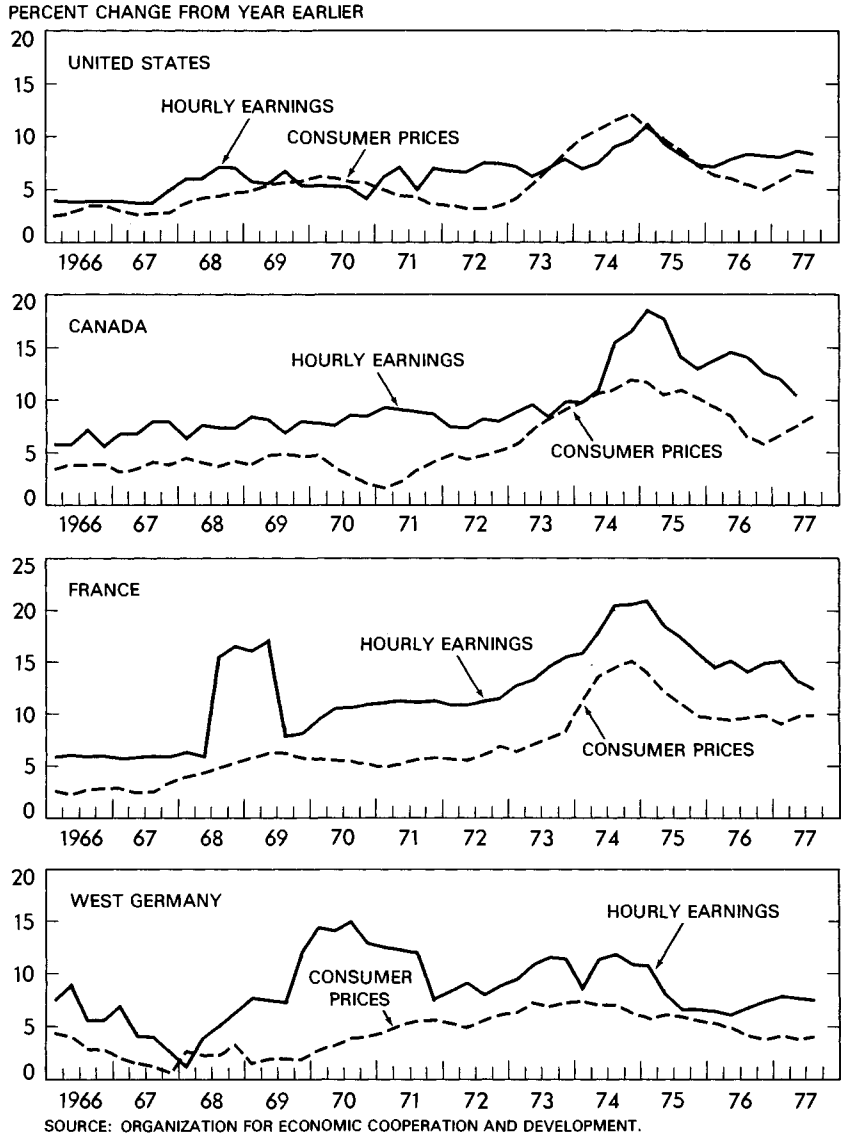
INFLATION

The slow upward drift of inflation rates in the late 1960s quickened after 1971, carrying inflation in most industrial countries above 10 percent per year in 1974 and more than twice that high in some countries. Although inflation rates have since receded, they remain well above those previously experienced, and further declines are now coming only slowly in most countries (Chart 6).

The upward movement of inflation rates was the consequence of a series of events that culminated with the oil embargo and oil price increases of late 1973. Economic policies in virtually all industrial countries were oriented toward expansion in 1972. As a result, growth was strong virtually everywhere that year and the next year. Although aggregate capacity utilization and unemployment data indicate that demand had been pushed beyond potential output in only a few national economies, the nearly simultaneous expansions outran available supplies of many raw materials and strained worldwide capacity in a number of basic industries. Industrial commodity prices climbed rapidly. The nonfood component of *The Economist* index of

Chart 6

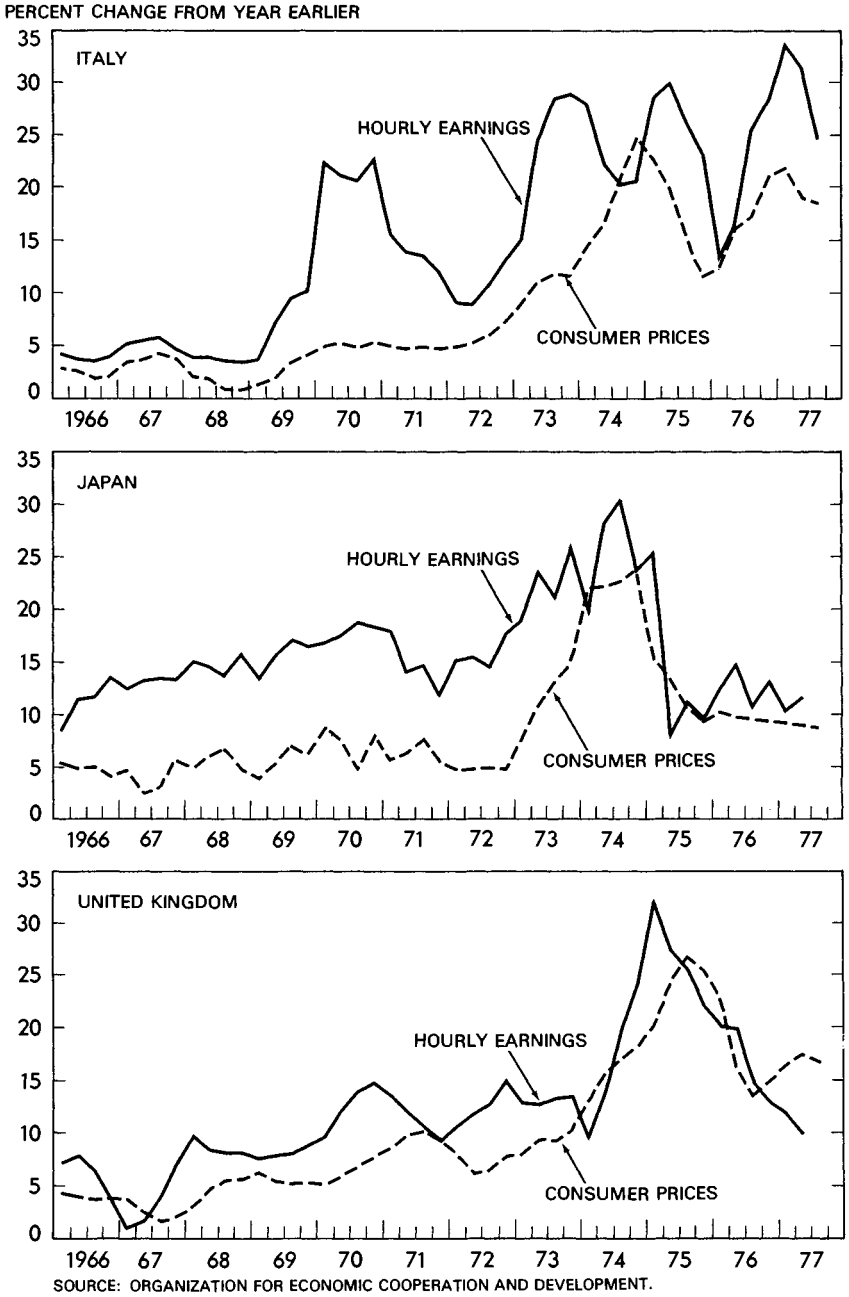
Consumer Prices and Hourly Earnings in Major Industrial Countries



SOURCE: ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT.

Chart 6—Continued

Consumer Prices and Hourly Earnings in Major Industrial Countries



SOURCE: ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT.

commodity prices (measured in dollars and excluding petroleum) rose 158.5 percent from December 1971 to December 1973. Less than one-twentieth of this increase can be attributed directly to the depreciation of the dollar in the early 1970s.

Grain prices also began to rise following declines in world harvests of wheat, corn, and rice in 1972 from year-earlier levels. World grain stocks (held mainly in the United States) had been whittled down from mid-1960s levels, so that poor harvests had a greater effect on prices than earlier. The food component of *The Economist* index rose 142.5 percent from December 1971 to December 1973.

Prices of manufactures also began to move up at a faster clip in 1973, reflecting higher input costs and strong demand. Consumer price increases in the large countries ranged from 7.3 percent in Germany to 15.0 percent in Japan over the 4 quarters ending in the fourth quarter of 1973. Wage pressures built up steadily in most countries. Trends in consumer prices and hourly earnings for the seven largest industrial countries are shown in Chart 6.

Although inflation rose in all countries during this period, there was considerable divergence of inflationary experience across countries. This divergence partly reflected differences in demand pressure and the extent and speed of wage responses to increases in the cost of living. The exchange rate realignments that began in 1971 also contributed to widening differences in inflation rates. Countries that had recorded above average inflation in the years up to 1971 and consequently experienced declines in their currencies faced additional inflationary pressure from rising import prices. Countries whose prices had been more stable, and whose currencies therefore tended to appreciate, received a dividend from slower import price increases. The shift to flexible rates among major currencies over the 1971–73 period also provided countries with more freedom to pursue policies with different consequences for inflation.

Inflation was already recognized as a serious problem in late 1973, when the world was surprised by the Arab oil embargo and a series of oil price increases that more than quadrupled the 1972 world price of crude oil. Of all the shocks of the early 1970s, the oil price increases have had the most profound and persistent effects. The direct effect alone added about 1½ percent to the price level in developed countries in 1974. Prices of substitute fuels were also bid up, thus further increasing price levels.

Coming at a time when upward price pressures were already intensifying, the oil price increases touched off an inflationary chain reaction. Fears that those who controlled supplies of other raw materials might succeed in emulating the Organization of Petroleum Exporting Countries (OPEC), speculation fed by fluctuations in exchange rates for major currencies, and a very tight supply situation led to another burst of industrial commodity

price increases. With stocks of grains having already reached very low levels, a second poor world harvest in 1974 contributed to further large increases in food prices.

The rise in oil, food, and other commodity prices reduced real incomes from wages and profits in manufacturing and service sectors. Attempts by workers and firms to restore previous positions put added upward pressure on wages and prices. The extent of these secondary wage-price forces varied with conditions in individual economies. Where automatic wage adjustments to compensate for consumer price rises were widespread, as in Italy or the United Kingdom, or where wages were adjusted annually, as in Japan, the pressures were greatest. Average increases in hourly earnings over 12-month periods reached 30 percent or more in these countries. Even in Germany, where wage pressures were more moderate, increases in hourly earnings approached 12 percent over a 12-month period.

The direct upward pressures from commodity prices abated as the world moved into recession in late 1974 and early 1975. Indeed, most non-oil commodity prices moved sharply downward. As a result, inflation rates receded, but the wage-price momentum that had been built into economies sustained rates of consumer price increase that continued to be roughly double what they had been in the late 1960s. In some countries such as Italy, the upward shift in the ongoing rate of price increase was substantially greater. The persistent high unemployment and low capacity utilization in the world since 1975 has had a relatively small effect in dissipating the momentum of the wage-price spiral.

CURRENT ACCOUNT IMBALANCES

The oil price increases of 1973 led to huge surpluses in the current accounts of most OPEC countries, and to their mirror image—large deficits—elsewhere. The OPEC countries could not immediately increase their imports to match their higher revenues. Hence their combined current account surplus, which measures the amount by which export receipts (including investment earnings) exceed payments for imports and net transfer payments, climbed from less than $10 billion in 1973 to over $60 billion in 1974. A large part of the corresponding shift in the position of the rest of the world was seen in the emergence of a combined deficit of more than $30 billion in the OECD countries, including the United States, after surpluses averaging $4.3 billion for 1971–73. The deficit of the non-OPEC developing countries widened to about $25 billion, from an average of $8 billion in 1971–73 (Table 14).

After being compressed by reduced oil consumption during the recession of 1975, the combined OPEC surplus expanded to the neighborhood of $40 billion in 1976 and 1977 as demand for oil picked up again. This surplus has become concentrated in the Persian Gulf states, whose revenues continue to outstrip their ability to absorb goods and services. The deficit of the non-OPEC developing countries has receded from a peak of $40 billion

in 1975 to less than $25 billion in 1977, while the deficit in the OECD countries has risen to more than $30 billion again.

TABLE 14.—*World current account patterns, 1973–77* [1]

[Billions of U.S. dollars]

Area and country	1973	1974	1975	1976	1977 [2]
OECD	2.8	−32.8	−6.3	−26.5	−32
United States	−.4	[3] −2.3	11.6	−1.4	−18
Canada	.0	−1.5	−4.7	−4.2	−4
Japan	−.1	−4.7	−.7	3.7	10
European Community	1.7	−11.3	.7	−7.8	0
West Germany	4.3	9.7	3.8	3.4	2
Developing countries:					
OPEC	9.0	61.8	30.8	42.3	40
Non-OPEC	−8.0	−24.5	−40.0	−26.3	−23
Other [4]	−5.5	−9.8	−18.0	−13.3	−11
Residual [5]	1.7	5.3	33.5	23.8	26

[1] Data are on the OECD basis.
[2] Preliminary estimates.
[3] Excludes cancellation of Indian debt (−$2.0 billion) and extraordinary grants (−$0.7 billion).
[4] Includes the Communist countries, South Africa, and non-OECD Europe.
[5] Residual arises from timing differences and inconsistencies in nationally collected data.

Source: Organization for Economic Cooperation and Development (OECD).

RECESSION

The massive increase in commodity prices—especially oil—led directly and indirectly to the worst recession since the 1930s. The direct effects were the result of a transfer from consumer incomes in the industrial countries to the revenues of oil-exporting countries. Spending generally declined in importing countries in response to the change in real incomes, while the OPEC countries increased their spending only slowly at first. Even after the OPEC countries made the initial adjustment of their spending to their increased wealth, their saving remained high. The result was a massive change in world saving patterns, as is dramatically shown in Table 14 by the pattern of current accounts in 1974. The change became increasingly evident as the total real gross national product (GNP) of the seven largest OECD countries fell at an increasingly rapid rate starting in the first half of 1974.

Two less direct responses added to the contractionary impetus of the price increases. First, consumers and business became progressively more pessimistic as 1974 wore on. There were extraordinary rises in saving rates in all major foreign countries, while sharp declines in real investment occurred in most areas.

A second depressing effect came in the reactions of policy makers. Virtually every country was faced with the dilemma of how to respond to the simultaneously inflationary and contractionary effects of the oil price rise. On the one hand, there was widespread reluctance to accommodate the inflationary effects by allowing nominal demand to grow at a sufficient pace to keep unemployment from rising. Many felt that such an accommodative policy would allow the new wage-price spiral to continue unchecked. On

the other hand, most analysts perceived that a continuation of restrictive policies—initiated to counter the tight markets in 1973—would lead to a sharp decline in real incomes and to a serious contraction.

Faced with this dilemma, countries chose different routes. The predominant response was to continue the restrictive policies initiated in 1973 into 1974. When the full contractionary force of the oil price increase was not felt immediately, monetary policy in some countries was made even more restrictive. Fiscal policy automatically became more restrictive when inflation raised tax liabilities by pushing individuals into higher personal income tax brackets and caused real corporate profits to be overstated.

By late 1974 the cumulative effects of the oil price increases and contractionary monetary and fiscal policies began to be felt more strongly. Rising saving rates added to contractionary forces as consumers became more cautious. Real investment fell with firms' growing concerns about the outlook for sales, high interest rates, and the structure of their balance sheets. Firms also moved to reduce inventories of materials that had been built up as a hedge against further commodity price increases. The combination of these forces produced the deepest recessions of the postwar period. Those few countries that were less affected by the oil price increase, like Canada, or that moved to counter its contractionary effects, like Sweden, had milder recessions. They were seriously affected by the subsequent prolonged period of weak demand in other industrial countries, however. Governments in these countries also ultimately adopted more restrictive policies to control inflation.

In 1975 authorities in most countries moved to counter their deepening recessions with expansionary fiscal policies. The view that increased rates of monetary expansion would raise inflationary expectations even under depressed conditions inhibited most countries from taking similar steps on the monetary side. The expansionary fiscal measures and the completion of inventory adjustments provided an initial burst of growth in most countries after the trough was passed. Since then real private spending has been relatively sluggish in most countries, and fiscal policies have become more restrictive. Hence output growth in industrial countries has slowed markedly outside the United States. Unemployment rates in most foreign countries now stand at or above the levels reached in 1975 and are rising (Chart 7).

THE WORLD ECONOMY IN 1977

Outside the United States, the major industrial countries virtually stagnated after the first quarter of 1977 (Table 15). Growth in the smaller industrial countries averaged even less than in the larger ones. Unemployment reached new highs in many countries. Commodity prices surged upward at the beginning of 1977, but the rise was short lived. Wage increases were smaller than a year earlier, and the momentum of inflation edged slowly downward. Sharply declining prices for food and many industrial commodities helped to bring inflation rates below underlying rates for most of the second half of the year.

Chart 7

Unemployment Rates in Major Industrial Countries

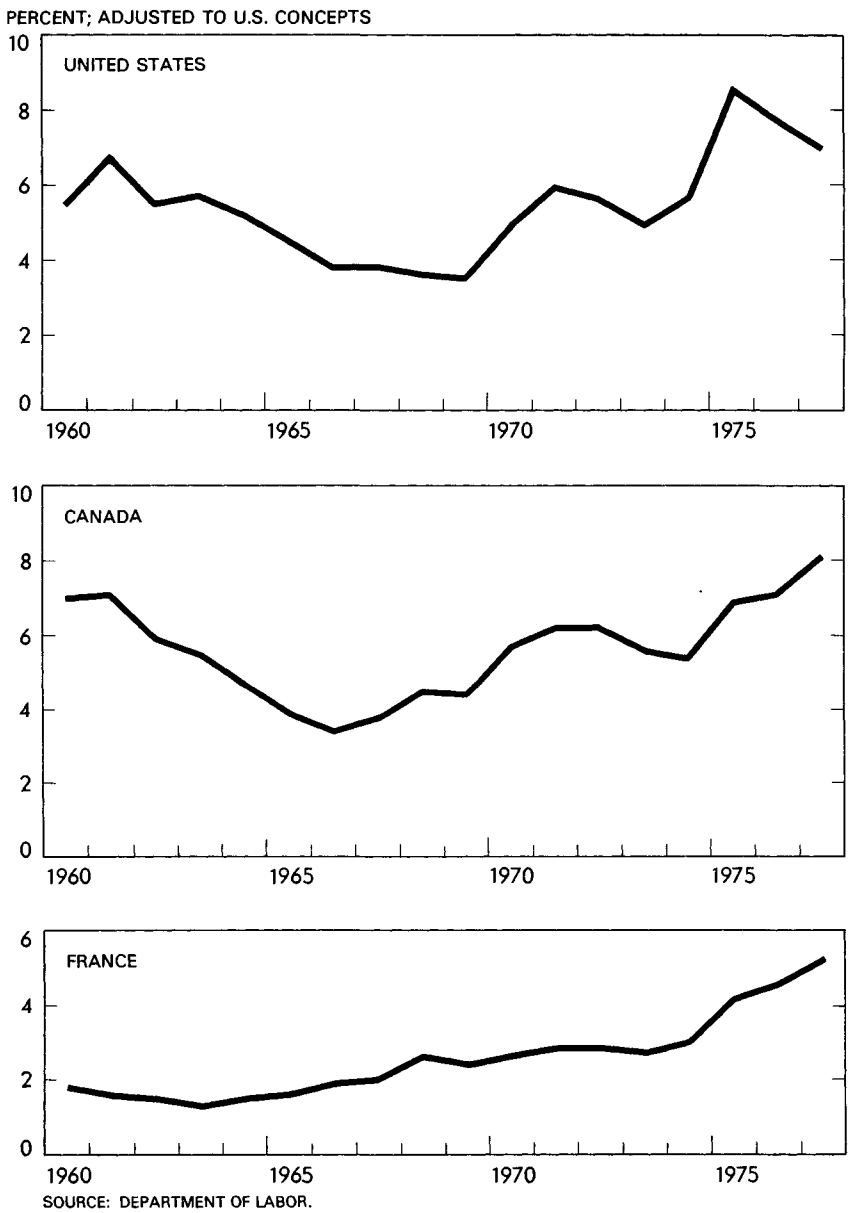
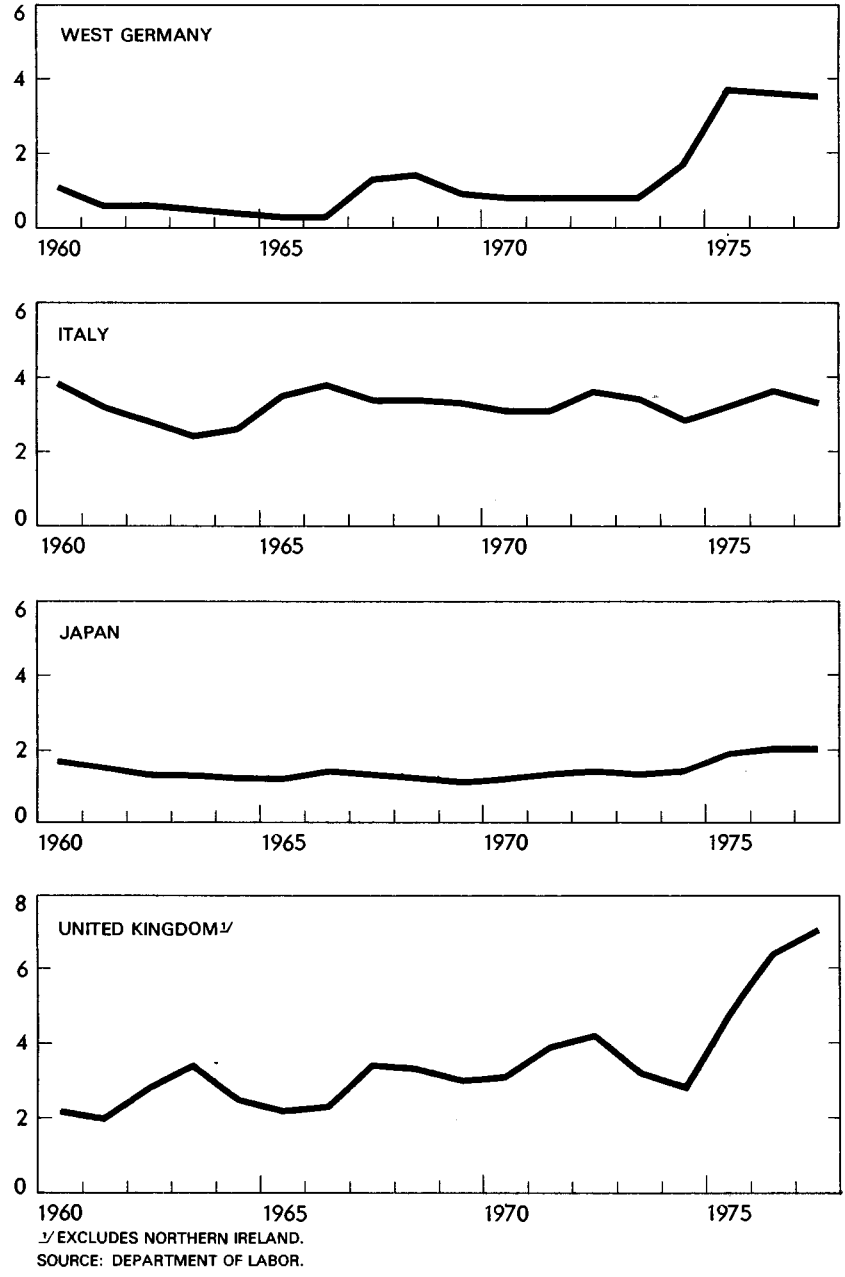


Chart 7—Continued

Unemployment Rates in Major Industrial Countries

PERCENT; ADJUSTED TO U.S. CONCEPTS



1/ EXCLUDES NORTHERN IRELAND.

SOURCE: DEPARTMENT OF LABOR.

TABLE 15.—*Real GNP growth in major industrial countries, 1976–77*

[Percent change at seasonally adjusted annual rate]

Country	1976				1977		
	I	II	III	IV	I	II	III [1]
United States	8.8	5.1	3.9	1.2	7.5	6.2	5.1
Canada	13.3	3.6	−1.3	−.8	7.8	−1.2	5.3
France [2]	7.4	4.9	1.6	1.6	8.8	−5.1	.9
West Germany	8.9	4.0	1.0	5.8	3.9	−.8	−.4
Italy [3]	10.0	5.5	1.0	7.6	7.5	−9.9	−2.4
Japan	12.0	6.0	1.6	3.4	8.8	6.8	1.8
United Kingdom [3]	10.8	−2.2	.7	3.7	−3.6	.4	−.4

[1] Preliminary.
[2] Gross domestic product excluding nonmarket activity such as compensation of employees in the government sector.
[3] Gross domestic product.

Source: Department of Commerce (Bureau of Economic Analysis), Organization for Economic Cooperation and Development, and national sources.

As inflationary fears receded, current account imbalances became the most serious constraint on expansion in many economies. Persian Gulf oil producers and several industrial countries continued to have large surpluses. Other governments were inhibited from adopting the more stimulative economic policies that were needed to restore the momentum of economic expansion, in part because of concerns that they would be unable to finance the larger current account deficits that would result. The emergence of a large current account deficit in the United States in 1977 was associated with some improvement in the positions of industrial and developing countries that had been hard pressed in 1976, but more than one-third of the U.S. deficit was offset by a jump in the surplus of Japan.

AGGREGATE REAL GROWTH

The growth of real economic activity in 1977 was disappointing—especially in Western Europe. Real output in OECD Europe increased only an estimated 2 percent. By the third quarter, the number of unemployed in these countries excluding Portugal and Turkey stood at about 7 million, or 900,000 above the figure a year earlier. This performance was, in part, the consequence of the restrictive policies adopted by a number of countries as a means of slowing inflation and reducing current account deficits. Italy and the United Kingdom accepted restrictions on their economic policies as part of the establishment of standby credits with the International Monetary Fund (IMF). Other countries—France, many smaller industrial countries, and many developing nations—also assigned high priority to reducing inflation and current account deficits, and maintained or adopted restrictive monetary and fiscal policies in 1977.

Because of the constraints on policies felt by many governments, hopes for sustaining a global recovery in 1977 were pinned to a group of "strong countries," those with relatively moderate inflation rates and favorable balance of payments positions. The United States, Germany, and Japan were the major states in this group, but Switzerland and the Netherlands

also fit the description. The United States was in a somewhat different position from the others in that it had moved to approximate current account balance in 1976. A deficit was seen as an acceptable position for the United States and, given the continuing OPEC surplus, even a desirable one from a global standpoint. It was expected that the other strong countries would also move toward and into current account deficit.

For world growth to be maintained at a satisfactory rate, it was necessary that growth in domestic demand in these strong countries be vigorous, thereby counteracting the restrictive measures taken in the "policy-constrained" countries. Reduction of current account deficits in the policy-constrained countries would be facilitated by such a strategy, and these countries would soon be able to move back to quicker recoveries.

A comparison of major countries' publicly announced forecasts for 1977 with what now appears the likely outcome (Table 16) shows that, except for the United States, countries have fallen below their governments' growth expectations. Germany has probably fallen 2 to 2½ percentage points short of the 4½ to 5 percent growth rate discussed early in the year. German authorities had counted on strong private demand at home and growing exports to achieve satisfactory growth. Investment and exports did not rise as much as expected, however, and the government budget deficit was smaller than projected. As a result, output growth stalled after the first quarter. The government responded by postponing measures intended to reduce the public sector deficit and by adopting a small fiscal stimulus package in November. However, the package came too late to affect the outcome for 1977.

The Japanese announced a growth target of 6.7 percent for the fiscal year ending in March 1978. Although the Japanese economy fell well behind the pace needed to achieve this, stimulative measures adopted in September and a second set of measures taken at the end of the calendar year will make the gap less than it would have been. Japanese GNP growth was supported mainly by strong exports. Domestic demand expanded at an average rate of less than 4 percent for the first 3 quarters of calendar year 1977. Thus the pattern of Japanese growth in 1977, and the resulting in-

TABLE 16.—*National forecasts and realized real GNP growth for 1977*

[Percent]

Country	Change from	Early 1977 forecast	Realized [1]
United States	Fourth quarter to fourth quarter	5¾–6	5¾
Canada	Year to year	3–4	2¼
France	do	4.6	2¾
West Germany	do	4½–5	2½
Italy	do	2.6	2
Japan	Fiscal year to fiscal year	6.7	5
United Kingdom	Year to year	1.2	½

[1] Preliminary estimates.

Sources: Forecasts from public statements of government officials and other official sources; estimates of realized growth from Department of Commerce, Organization for Economic Cooperation and Development, and Council of Economic Advisers.

crease in the current account surplus by nearly $7 billion, served to tighten current account constraints on other countries.

Economic growth in all other major foreign countries also fell short of expectations. The pervasively weak element in the growth of demand in 1977 was business fixed investment. Among the seven largest countries, only in Canada was real business fixed investment above 1972–73 levels. Business fixed investment has slowed in most countries since 1976, and virtually no growth appears to have occurred in the second half of 1977 in any of the large foreign countries.

Real private consumption expenditures rose only moderately in most countries in 1977. Consumption declined in the United Kingdom, where falling real wages depressed disposable income and hence real consumption, and was virtually unchanged in Italy because of sharply increased personal tax collections. In Germany and France, taxes net of government transfer payments also took an increased share of household income in 1977. Saving rates in the large foreign countries were lower than in 1976, except for Japan, but the declines since the recovery began were generally less than in the United States.

Government spending made only a modest contribution to demand growth in most countries. Authorities in Italy and the United Kingdom followed strongly restrictive demand management policies. Limiting the government share of total spending over the medium term is an independent policy objective in these and other countries. Authorities have therefore been reluctant to increase spending in the short run as an aggregate demand measure. Japan, where the government sector is still substantially smaller than in other countries, was an exception to the general pattern of slow growth in real government spending.

Despite the slower growth of world trade in 1977, the growth of real exports was relatively strong in Japan, Canada, Italy, and the United Kingdom. Except for Japan, these are countries whose exports benefited from substantial exchange rate depreciations, although in Canada the growth of the U.S. market was undoubtedly more important for exports, and petroleum exports played a role for the United Kingdom. In Germany and France exports grew more slowly, and in the smaller OECD countries they contracted, on average. Thus the smaller countries were most adversely affected by external developments, and these countries were the ones registering the slowest real growth—with output declining in many of them.

INFLATION IN 1977

While inflation rates in most countries remained high in 1977 (Table 17), they did come down somewhat—particularly in those countries where inflation had been highest. A surge in world commodity prices in late 1976 and early 1977 pushed up consumer prices in the first half of the year. However, these prices turned around by midyear. In some countries—the United Kingdom, Italy, France, and a number of smaller countries—price pressures

continued to be exacerbated in the first half of 1977 by large exchange rate depreciations that had occurred in 1976. These currencies were stable, even rising somewhat in 1977, and this source of price pressure abated or was reversed as 1977 progressed.

TABLE 17.—*Inflation in major industrial countries, 1976–77*

[Percent change in the consumer price index; seasonally adjusted annual rate]

Country	1976				1977		
	I	II	III	IV	I	II	III
United States	5.2	4.9	5.7	4.4	8.4	8.8	5.3
Canada	6.2	6.0	4.4	7.0	9.9	9.4	7.3
France	10.2	8.7	10.4	10.5	6.5	12.2	10.4
West Germany	4.4	4.5	3.3	3.1	5.2	3.8	3.7
Italy	15.1	26.9	14.6	28.2	20.8	16.4	14.5
Japan	7.9	10.8	9.6	8.9	7.8	8.9	6.1
United Kingdom	14.6	8.8	15.1	21.7	21.0	12.4	11.6

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

A significant decline in inflation was achieved in 1977 in the United Kingdom, where a wage restraint program prevented import price increases from being reflected in wage settlements. Although no wage norm was agreed to following the end of the second year of wage restraint in August 1977, the government has been largely successful in preventing contracts from being reopened until 12 months after the previous settlement. Increases since August have not averaged substantially more than the 10-percent figure that the government views as consistent with controlling inflation.

Inflation also declined in 1977 in Italy. Italian wages, which are indexed to the cost of living, did respond to import prices and rose sharply through the first half of 1977. With the stabilization of the lira and the turnaround in commodity prices, cost-of-living increases in wages are now declining rapidly. The declining trend has been reinforced by some shrinkage of wage increases granted in addition to cost-of-living increases.

Thus inflation has been moderating in the two large countries where it had been most rapid. Elsewhere, however, wages and prices appear to be locked in a stable pattern of increases. Price increases in Japan have been held down by the appreciation of the yen in 1977; and other countries whose currencies appreciated substantially late in the year should post lower price increases in early 1978. It remains to be seen, however, to what extent these smaller price increases will lower inflation rates over the longer term by holding down money wage increases. In other countries there appears to be little risk that inflation will accelerate markedly, but also little hope that it can be brought down quickly from current levels. Wage settlements and prices of manufactured goods have proved to be relatively insensitive to the high unemployment and low capacity utilization now prevailing. Wage and price controls have been effective only when combined with very restrictive demand management policies and only for limited periods of time. The Cana-

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dian government is in the process of phasing out one of the few remaining general programs of wage and price controls. In addition, there have been tentative experiments with the use of taxes as measures to slow inflation. In one approach, governments have proposed general tax reductions in return for agreements by labor unions to accept lower money wage settlements. When tax relief is warranted on other grounds and labor negotiations are highly centralized, something may be gained through such a bargaining process. An alternative set of approaches, discussed in Chapter 4, would use decentralized tax incentives for reducing inflation. These approaches are novel and raise important substantive questions that must be answered before they could be responsibly proposed.

CURRENT ACCOUNT POSITIONS IN 1977

Four industrial countries that have had persistent surpluses—Japan, Germany, Switzerland, and the Netherlands—had a combined surplus of about $16 billion in 1977. The United Kingdom and Italy moved from deficit into surplus.

Efforts by other OECD countries to reduce their sizable deficits in 1976 met with little success because of slow growth in their export markets. Some countries within this group—Portugal and Turkey, for example—have encountered difficulties in continuing to finance deficits. The non-OPEC developing countries appear to have reduced slightly their combined current account deficit in 1977. Their export earnings were boosted by commodity price increases early in the year, and some of them had sharply curtailed imports as well. Brazil and Mexico achieved substantial reductions in their deficits and a number of Asian countries appear to have realized smaller shifts.

The $17-billion rise in the U.S. current account deficit from $1 billion in 1976 to about $18 billion in 1977 reflected a $20-billion increase in our trade deficit. Although an increase in the deficit was widely expected, the magnitude of the shift proved to be much greater than anticipated, since growth abroad failed to develop as strongly as expected and U.S. oil imports were pushed up by a series of unforeseen developments. Rising payments for oil accounted for more than one-half of the increase in our trade deficit in 1977. The weak U.S. export performance and rise in the trade deficit in 1977 does not appear to stem from trends in relative domestic prices. U.S. and foreign prices measured in dollars held about the same relationship in early 1977 as in mid-1974, although there have been fluctuations in the interim. There has been some shift in relative export prices for manufactured goods, however, suggesting a greater willingness on the part of exporters in some foreign economies to compete on the basis of price. Nevertheless the depreciation of the dollar in late 1977 should result in a noticeable improvement in U.S. competitiveness, with the trade volume response occurring after a lag of 1 or 2 years.

FOREIGN EXCHANGE MARKETS

The most notable development in foreign exchange markets in the first half of 1977 was the strength of the U.K. pound and the Italian lira after these countries completed standby financing agreements with the IMF. As the year progressed, exchange market attention focused increasingly on the dollar.

Concern over the large U.S. current account deficit generated downward pressure on the dollar—particularly vis-a-vis the currencies of countries with large surpluses. As market uncertainties grew over what measures would be enacted by the United States to control the rise in oil imports, and as demand in foreign economies showed few signs of strengthening, the pressures intensified. The decline of the dollar from December 1976 to December 1977 against a weighted average of the currencies of ten major foreign countries (Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, and the United Kingdom) was 5.5 percent, weighting currencies by countries' shares of the total trade of the group. Weighting the same currencies by countries' trade with the United States gives a depreciation of only 2.4 percent during 1977. The difference is mainly due to the much larger weight of the weak Canadian dollar in the latter index. Indexes including more currencies also tend to show smaller depreciations of the dollar, since currencies excluded from the index of ten currencies were virtually all weaker than the average of those included.

The yen appreciated against the dollar by 22.3 percent from December 1976 to December 1977, the largest appreciation of any currency. Increases in the dollar value of several other currencies were also sizable: German mark, 10.8 percent; Swiss franc, 18.0 percent; and U.K. pound, 10.5 percent. On the other side, the Canadian dollar fell 7.2 percent.

The magnitude of these movements was not unusual for the floating rate period. In the period since the dollar floated, it has twice depreciated by more than 7 percent on a weighted average basis in 12 months or less. Three times the dollar appreciated by 7 percent or more, with the appreciation exceeding 13 percent in two cases. Individual rate changes of 10 percent have been common, and even the change in the yen rate this year has been matched several times by movements of other currencies. Rapid movements at the end of the year occurred under disturbed market conditions, however, with wide spreads between bid and ask quotations and large intraday gyrations in rates. Thus the efficiency of the current system of rate determination was called into question—a topic pursued below.

UNFINISHED BUSINESS

At the beginning of 1978, the world economy faces the same problems that have confronted policy makers since 1975—unemployment is high, margins of unused productive capacity are substantial, inflation continues at excessive rates, protectionist forces are strong, and current accounts are

extremely unbalanced. On the brighter side, the virulence of underlying contractionary and inflationary forces has abated as governments have taken cautious, and for the most part cooperative, steps to improve economic performance. The international financial system has adapted to the need to channel the large accumulation of savings in OPEC countries to countries in deficit.

The serious problems that have beset the world economy have led some to argue that we must permanently set more limited economic objectives. In some respects this is true—we must plan for a world of less secure and more expensive energy. Nevertheless, higher employment and output are achievable virtually everywhere without creating new inflationary pressures. The problems are global and the pursuit of appropriate domestic policies is constrained in many countries by international payments imbalances. Achieving the potential of the world economy will require bold policies and close international economic cooperation.

Four major economic challenges are discussed below. International cooperation is essential to meeting each one of them. If, instead of working together to sustain economic recovery and solve our other problems, governments accept a continuation of the poor performance of 1977 as inevitable, the world may well face a darkening economic future. Unilateral protectionist trade policies will flourish. Pressures for international arrangements to allocate markets in especially depressed sectors will grow stronger. The result will be a more rigid world economy, no longer capable of generating the rapid growth of trade and incomes that has characterized the post-World War II period. The developing countries, which are looking for opportunities to participate more broadly in world trade, will be particularly hurt by such an outcome.

TO RESTORE HEALTH TO THE INTERNATIONAL ECONOMY

Foreign industrial economies as a group have shown only scattered signs of renewed strength following their extreme weakness in mid-1977. The Japanese economy is experiencing very slow growth. Even with the stimulative measures announced at the end of 1977, the appreciation of the yen, together with a high personal saving rate and depressed investment, raises questions whether growth in 1978 will exceed 1977. In Europe, the economic outlook with existing policies is for rising unemployment of labor and falling capacity utilization. For the OECD as a whole, GNP growth is likely to average 3½ to 4 percent in 1978, unless there are major policy changes in addition to those announced for Japan and those proposed for the United States in this *Report*.

At the same time, most forecasts indicate that the rate of increase of consumer prices in the OECD should slow somewhat from about 8 percent in 1977 to around 7 percent in 1978. There continues to be sufficient slack in most economies to permit growth at rates moderately higher than

current forecasts without forgoing a gradual reduction in average inflation rates.

Governments recognize the need for stronger expansion. In November 1977 the member countries submitted their preliminary objectives for 1978 to the OECD. In the aggregate these goals would lead to 4½ percent real GNP growth for the OECD as a whole. Such an outcome would be the minimum that could be expected to arrest the rise of unemployment abroad.

The generally sluggish behavior of business fixed investment has been a major factor keeping countries from achieving their goals. Stronger investment is important in the short run to provide stimulus for sustained recovery. Over the longer run, some are concerned that capacity constraints may have become relatively more important limitations on noninflationary expansion. Thus when capacity limits are reached, unemployment may still be above levels that would be inflationary on the wage side. Greater business fixed investment during the recovery period would reduce the potential for capacity constraints and make possible a further reduction in unemployment.

A number of explanations have been offered for the weakness of investment. No single explanation will suffice for all countries. Nevertheless a substantial portion of the current weakness of investment in every country is accounted for by the low current and prospective rates of capacity utilization and the effects of low levels of output on profits. In addition, the persistence of inflation has undoubtedly added to concerns that recoveries may not be sustained. Much investment that has occurred has been for modernization projects that promise to save more in labor, energy, and other inputs than their capital costs; projects that would add to capacity have in many instances been deferred.

Considerable attention has been focused, as well, on low after-tax returns on capital and the poor outlook for improvement as explanations for sluggish investment. Measures of profits and the total return on capital must be treated with some reservations, but there is substantial evidence that over the past 15 to 20 years they have declined relative to GNP and relative to capital stocks in many foreign countries. Moreover it appears—in contrast to the U.S. experience—that the fall in the return on capital has been too large and too prolonged to be entirely attributable to the recent recessions, at least in Germany, the United Kingdom, and Italy.

Investment is not being held back by insufficient savings. Given the savings represented by the OPEC current account surplus and with consumer saving rates in most foreign economies high by historical standards, there is no shortage of savings in the world today. Thus a higher return on capital is not required today to assure an adequate supply of funds for investment. Rather, to encourage firms to make use of the available pool of savings for productive investment, what is needed is a sufficient margin of the expected return on capital over the cost of capital.

One way to increase this margin and call forth more investment is to raise expectations and reduce uncertainties concerning after-tax returns on capital.

Many government actions can have an effect on these expectations by achieving continued economic recovery, reducing tax liabilities associated with new investment, and reducing uncertainties and inefficiencies that result from the government regulatory process. A second way to increase the margin is to maintain an expansionary monetary policy, which reduces the cost of capital. Monetary policy is more flexible than policies that work by raising the rate of return on capital, but there is a role for both kinds of policies. Each generates higher expected incomes for those who are willing to accept the risk of new investment. But the two kinds of policies do, of course, have different effects on the distribution of income, and these must be taken into account.

To some extent, views concerning the indicators of macroeconomic management threaten to prevent some countries from reaching their goals. As discussed below, the significance of current account positions has changed in view of the OPEC surplus. In addition, attitudes about budget deficits and the growth of monetary aggregates should be formulated in the light of current economic conditions. As noted in Chapter 2, it is difficult to hold down deficits in government budgets when the drag on industrial economies from external deficits is as high as it is now, and especially so when investment is weak as well. Similarly, rates of monetary expansion must make realistic allowance for the inherited momentum of price and wage increases and the rate at which this momentum can be dissipated. It is important to avoid such a progressive tightening of monetary conditions that investment objectives are thwarted.

In recent years, the appropriate use of monetary and fiscal policies has sometimes been constrained by views on their significance and impact. The principal tools of macroeconomic policy are not themselves the ultimate objectives of policy. In reality, monetary growth rates and budget deficits are strategic variables, and they must adapt to economic conditions. The significance of these strategic variables lies in their effects on output, unemployment, and inflation.

Sometimes it has been suggested that monetary growth or budget deficits affect inflation rates directly through expectations, aside from their effect through actual or expected demand. Expectations of inflation are indeed important determinants of economic behavior, but these expectations are linked to actual price pressures that are expected to develop in markets. It is difficult to see how inflation (or the expectation thereof) would be raised significantly more by monetary or fiscal policy measures that moved an economy toward full utilization of its productive potential, compared with a fortuitous shift in exports or in saving behavior that had the same effect on demand. A more carefully articulated view is that monetary and fiscal policy affect the level and composition of economic activity—and thus affect inflation through this linkage.

A program for achieving full recovery in the industrial economies must begin with measures to raise domestic demand and capacity utilization. Only then is sufficient investment likely to be forthcoming to achieve structural

objectives such as reducing dependence on export demand and forestalling potential imbalances between capital stocks and labor forces. Both monetary and fiscal policy can make a contribution. With excess capacity everywhere, world recovery can proceed without undue concern that reasonable expansionary policies will trigger a new round of inflation. As recovery continues and utilization of capacity reaches high levels, unemployment may still remain unacceptably high in some countries. A more cautious approach to further reductions in unemployment would then have to be taken. It may be necessary to move progressively toward fiscal restraint to keep demand within the productive potential of the economy, and meanwhile continue to promote investment with continued stimulative monetary policy and special incentives for investment.

Improved cooperation in economic policy making will be essential if countries are to succeed in carrying out such a program. The consequences of insufficient attention to the global implications of national policies are seen in the inflationary pressures generated by the simultaneous expansion of 1973 and in the poor performance resulting from too great a reliance on export-led growth in 1977. The mechanisms for international cooperation have improved in recent years.

The heads of state of the largest industrial countries have met three times since 1974 to address economic problems. At the London Summit last May the heads of state discussed their domestic economic goals and agreed to monitor progress toward them.

While not all of the specific goals for 1977 that were laid down at the London Summit have been achieved, the exercise has proved a useful tool in improving international economic cooperation. When the German and Japanese economies proved to be weaker than officials in those countries had expected, the Summit commitments reinforced domestic considerations that led both governments to implement stimulative measures in the fall. Summit commitments also supported the efforts of other governments to maintain policies directed primarily at reducing inflation and current account deficits.

The process of setting economic objectives and examining their consistency and desirability is being extended in the Economic Policy Committee (EPC) of the OECD. The EPC will continue to monitor economic activity in 1978 relative to countries' own internal goals and to the overall balance of demand and supply in the world economy. The international discussion of goals and the means to achieve them is necessary to assess the consistency of individual countries' aims, to guide the formation of policies that have good promise of achieving them, and to respond to developments that push economies off their desired courses.

TO DEAL WITH EXTERNAL IMBALANCES

A country's current account balance measures its net receipts from trade in goods and services (including investment income) plus net transfers from the rest of the world. It is closely related to the level of economic activity.

Higher demand at home generally leads to more imports and thereby to a smaller surplus or larger deficit. Moreover, a decline in the balance generated by external forces must be offset by stronger domestic demand if GNP growth is to remain unchanged. Thus a country's current account position is an important indicator for setting demand management policies.

A country's current account balance is a useful economic indicator for a second reason. A current account surplus must by definition be matched by a net outflow of private and official investment to the rest of the world, while a deficit must be matched by a net inflow of investment. Policy makers must consider the sustainability of a current account deficit—whether the willingness of foreign investors to acquire claims on a country or the willingness of domestic investors to reduce claims on foreigners will remain strong enough to finance a given deficit. Changes in a country's current account position may require exchange rate changes to reconcile domestic objectives with a current account position that can be sustained. But neither the current account nor the exchange rate should be viewed as an ultimate objective of policy in the same sense that real income and the rate of unemployment are. These external variables do not directly affect the welfare of citizens, although they have important effects on variables that do.

The presumption in the past has been that a mature industrial country like the United States would normally be in current account surplus, thus supporting a private capital outflow to capital-poor developing countries where the productivity of capital was thought to be relatively high. The emergence of the OPEC countries as major capital exporters and the troubled state of the world economy have altered this presumption, at least for the present. Although developing countries continue to welcome small current account deficits—that is, an inflow of capital—large deficits are not welcome, since these countries' export earnings are insufficient to meet the resulting increase in debt service. Thus industrial countries following appropriate policies are more likely to have current account deficits under today's conditions. Surpluses most often occur when domestic demand is particularly weak, when the currency is undervalued, or when there are barriers to imports or inducements to exports which are disruptive to world trade.

Over the last 4 years, there has been an extraordinary divergence in countries' current account positions. Surpluses have been common among those countries best able to finance a deficit—including the United States in 1975. As a result, borrowing by many weaker countries with large deficits strained the limits of international lenders' willingness to extend credits to them, and the fabric of the international financial system was stretched thin. The movement of the United States into deficit has relieved these strains somewhat but has led to new strains in exchange markets.

Some perspective on the relative current account positions of the OECD countries in 1977 is given in Table 18. The current account positions of

the OECD countries in 1977 (as projected by the OECD) are shown, as well as the size of the surpluses or deficits relative to gross domestic product (GDP). The scaling by GDP is intended to facilitate comparisons of countries of different size, not to suggest a norm for current account positions. As can be seen in the table, the relative size of the estimated deficit is somewhat larger for the United States than for the OECD countries as a whole. Several major countries and many smaller countries have relative deficits substantially larger than the U.S. deficit, however. The table also shows clearly the extreme positions of many small countries.

In time, as the United States and others finally accept the need to take effective measures to limit oil consumption, the OPEC surplus will dwindle and the corresponding deficits will shrink. But in the interim only action by OPEC members to reduce oil prices or dramatically raise imports, or a repetition of the 1975 world recession, would significantly reduce the OPEC surplus. The latter would be an extraordinarily costly way to reduce oil imports. Hence, for some time to come, appropriate national policies and international cooperation will be particularly important to ensure that the international financial system remains adequate to the demands that will be made on it and to reduce the large imbalances that exist aside from the OPEC surplus.

TABLE 18.—*OECD current account estimates for 1977*

Country	Billions of U.S. dollars	Percent of 1976 gross domestic product
Switzerland	3¼	5¾
Japan	10	1¾
Belgium-Luxembourg	½	¾
Italy	1	½
Netherlands	½	½
West Germany	2¼	½
United Kingdom	¾	¼
Iceland	0	0
TOTAL OECD	−32	−¾
France	−3	−¾
Finland	−¼	−1
United States	−18	−1¼
Canada	−4¼	−2¼
Spain	−3	−2¾
Australia	−3	−3¼
Sweden [1]	−3¼	−4½
Denmark	−1¾	−4½
Greece	−1¼	−5¾
New Zealand	−¾	−5¾
Ireland	−½	−6½
Austria	−2¾	−6¾
Turkey	−2¾	−7
Portugal	−1¼	[2] −8½
Norway	−5¼	−16¾

[1] Estimates not comparable with those shown in national sources because of an OECD correction for a once-and-for-all negative impact of $¼ billion on the current account balance due to a change in Sweden's method of statistical reporting.

[2] Calculated using 1975 gross domestic product.

Sources: Organization for Economic Cooperation and Development (OECD) and Council of Economic Advisers.

When current account imbalances arise for a given country, there are several alternative courses of action. If a deficit appears temporary—from, say, a bout of cold weather or a sharp cyclical movement—one would expect extraordinary deficits to be financed by private and official capital flows. For large and unsustainable surpluses or deficits, which are likely to persist and reflect underlying trends, adjustment must come either through adjustment of macroeconomic variables, such as a change in interest rates or economic activity, or through changes in the exchange rates. Finally, there are a number of "microeconomic measures" that can be pursued, such as trade policy, protective actions, changes in the tax structure, or export promotion. By and large these latter measures are not appropriate to promoting adjustment between regions: they greatly distort the underlying priorities of an economy with little payoff in adjusting imbalances. The roles of exchange rate adjustment, macroeconomic measures, and financing are explored further in the following sections.

Exchange Rates and Current Account Adjustments

During the first half of the 1970s, the industrial world moved from the Bretton Woods system of predominantly par value exchange rates to one in which the exchange rates between major currencies are determined primarily by market forces. The role of the exchange rate in the adjustment of countries' current account positions is potentially a powerful one. Exchange rate changes can help to eliminate persistent current account imbalances, and they can forestall imbalances that otherwise would arise in a world where inflation rates and real growth rates differ widely. Now that we have several years of experience operating with more flexible exchange rates, it is useful to review events and ask how, and how well, the system has functioned.

The present system of flexible exchange rates is not a pure floating rate system. Many smaller countries have continued to maintain the exchange rates of their currencies within specified limits with respect to one or more major currencies. The European Joint Float (the so-called "Snake," currently consisting of the currencies of Belgium, Denmark, Germany, the Netherlands, and Norway) is a significant regional arrangement for keeping exchange rate movements among members within fixed limits. The existing exchange rate system is also distinguishable from a pure floating rate system in that governments and central banks buy or sell foreign currencies in intervention operations to counter disorderly market conditions, to slow movements in rates, and occasionally to prevent rates from moving.

In the period since the dollar floated in March 1973 exchange markets have gradually adjusted to the new regime. Although there have been large rate movements during this period, these movements have generally reflected fundamental developments. The historical record indicates, however,

that exchange market attention has focused on different factors at different times.

Soon after it was allowed to float in March 1973, the dollar came under downward pressure once again, and by July it had fallen to levels that with hindsight appear too depressed. To a certain degree, the further decline was caused by those forces that had generated pressure under the par value system—at the old exchange rate the United States was not competitive. Also important, however, was the desire of foreign holders of dollars to diversify their foreign exchange positions, given the initial uncertainty in the market about how the new system would function and the likelihood of larger, more frequent, and less predictable changes in exchange rates. One piece of evidence for this diversification is the substantial decline in the dollar share of gross Eurocurrency assets that occurred in 1973. Evidence that central banks stood willing to enter the market forcefully to counter disorderly market conditions helped to dispel some of the uncertainties and contributed to a stabilization of the dollar in July 1973.

Following the Arab oil embargo and the announcement of higher OPEC oil prices in late 1973, exchange markets focused on individual countries' dependence on foreign oil. In view of the United States' relatively high degree of self-sufficiency in energy, as well as the central role of the dollar as an investment vehicle for OPEC surpluses, the dollar appreciated by 12.7 percent on a weighted-average basis from October 1973 to January 1974.

During the recession and early recovery period from mid-1974 through the end of 1975, exchange rate movements were dominated by differences in interest rates. U.S. short-term interest rates fell relative to rates in other major countries during the U.S. recession. The decline in interest yields on dollar assets relative to yields available in other currencies caused investors to attempt to shift out of dollars, and the dollar depreciated over a 6-month period by 8.1 percent against a multilateral weighted average of ten currencies. Short-term dollar interest rates turned around as the U.S. recession bottomed out in the second quarter of 1975, while rates in other countries continued to fall. As a result, the dollar rose, wiping out the earlier depreciation by September. It is interesting to note that neither the swing in the U.S. current account from a deficit in 1974 to a surplus at an annual rate of $16 billion in the second quarter of 1975, nor the subsequent turnaround in the current account—developments that were largely the result of the depth and timing of the recession in the United States and in major foreign economies—had a major impact on the value of the dollar during this period.

In 1976, exchange market participants seemed most influenced by differential rates of inflation. Market commentary, at least, was preoccupied by these differences although countries whose currencies depreciated also had current account deficits. The dollar appreciated by a small amount during the year, in line with the better-than-average U.S. price performance.

The currencies of the two major countries with the highest inflation rates—the United Kingdom and Italy—depreciated against the dollar by 17.0 percent and 21.3 percent respectively.

Most accounts of exchange rate movements in 1977 relate these movements to trade and current account developments. Indeed the initial pressures on the dollar developed in the wake of a string of record monthly trade deficits—reflecting a major increase in oil imports and differences in growth rates between the United States and other OECD countries. As it became clear that these deficits were unlikely to shrink over a reasonable period of time, the pressure on the dollar intensified. The countries with the largest appreciations, Japan, Germany, and Switzerland, were those with the largest and most persistent current account surpluses. The turnaround in the pound sterling also coincided with the turnaround in the U.K. current account.

Although Germany and Switzerland had somewhat lower inflation than the United States, only a small fraction of the appreciation of these currencies could be attributed to actual differences in inflation rates. Moreover, developments during the year did not warrant a shift in expectations of future inflation large enough to account for a substantial part of the movement in exchange rates.

The dollar depreciation in 1977 ran counter to a strong rise in U.S. interest rates and declines in most foreign interest rates. During the year, U.S. short-term interest rates rose about 350 basis points relative to those in major European countries. In the past, interest rate movements of this magnitude generated substantial private capital inflows or exchange rate changes.

The size and timing of the exchange rate changes in the episodes recounted above illustrate some implications of the fact that trade and price developments affect exchange rates through their effects on the supply and demand for assets denominated in different currencies. Among the most important determinants of the price of any asset are portfolio risk, current return—for example, interest—and expectations concerning its own future value. Interest rates and perceptions of risk have been major determinants of exchange rates, as seen in the 1973 and 1975 episodes. Moreover, relative price and current account developments have strongly affected exchange markets, primarily by altering expectations concerning future exchange rates. Thus exchange rates have responded to inflation and current account developments as market participants have concluded they would persist. Rate changes have sometimes led to actual changes in underlying variables and often followed them. When nonfinancial developments have been viewed as temporary, such as the U.S. current account surplus in 1975, they have had little effect on expectations and therefore on exchange rates.

While exchange rate movements during the flexible rate period have broadly reflected underlying developments, sustained large movements in one direction, followed by reversals, have occurred surprisingly often. These

movements have often not corresponded to discounts or premia on forward exchange rates. They have been of sufficient regularity and magnitude to cast doubt on whether large exchange rate changes have always reflected the workings of a market in which new information is efficiently incorporated into currency prices. Markets have also been characterized from time to time by very thin trading, much wider than normal bid-ask spreads, and large intraday rate movements in the absence of significant fundamental developments. When these disorderly conditions prevail in the market, there is a question whether the longer-run prospects for currencies may be lost from sight. Critics of floating exchange rates have pointed to these features of the current regime to underscore the need for more active intervention by central banks and governments.

Responding in part to these concerns, as well as to domestic policy needs, foreign central banks in 1977 made heavy purchases of dollars to smooth, and in some cases to limit, the appreciations of their currencies against the dollar. These activities are crudely indicated by reserve movements over the year. British official reserves rose $16.2 billion through October, when large-scale intervention was suspended. Japanese reserves rose $6.6 billion and German reserves $5.3 billion for the full year.

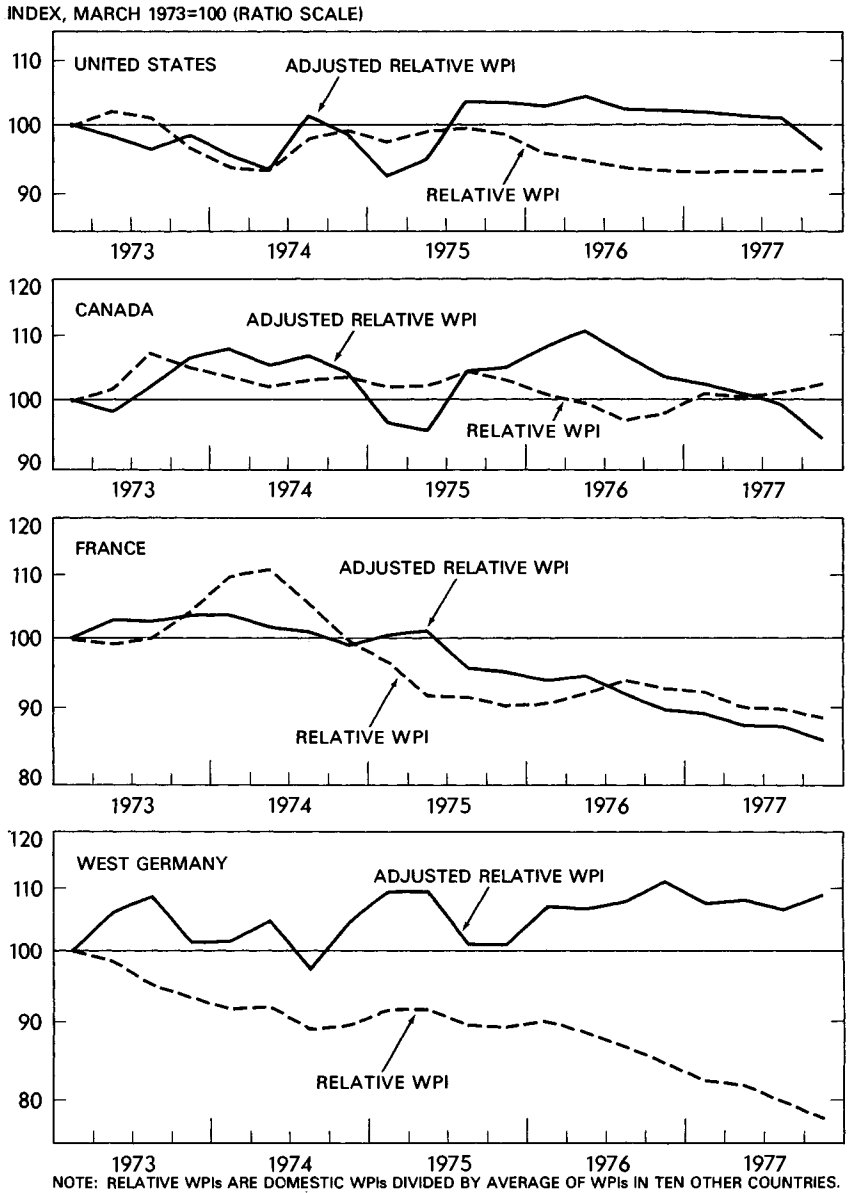
It is unlikely that intervention had a major lasting impact on exchange rates. The large volume of liquid funds in international financial markets and the one-sided risks that arise when central banks come into the market heavily on one side have meant that a large and continuing flow of intervention would be needed to keep rates from moving in response to changing expectations among managers of private foreign exchange positions. Thus the volume of intervention required to keep a rate from moving is not a reliable indicator of how far the rate would go if it were permitted to adjust freely. When the Bank of England suspended its massive intervention on October 31, 1977, the pound moved to a level only 1.8 percent higher against a weighted average of foreign currencies than the level at which it had been held. Even with the later weakness in the dollar the weighted average pound was only 5.0 percent above its October level in mid-January. While intervention can be a useful tool in restoring order to exchange markets, substantially larger intervention than seen in 1977 would be necessary to have a large effect on rates for any time.

Eliminating most cumulative rate movements would not be desirable even if it were easier. Flexible exchange rates have been beneficial because they have helped to reduce the large changes in countries' relative price levels that would have occurred as a consequence of differential price movements among trading partners (Chart 8). Some significant and lasting changes in relative price levels have resulted from exchange rate changes, however. These changes have generally helped to reduce unsustainable current account surpluses or deficits.

It is not an indictment of flexible exchange rates that current account imbalances have continued to occur and in some cases have proved to be

Chart 8

Relative Wholesale Prices Unadjusted and Adjusted for Exchange Rates

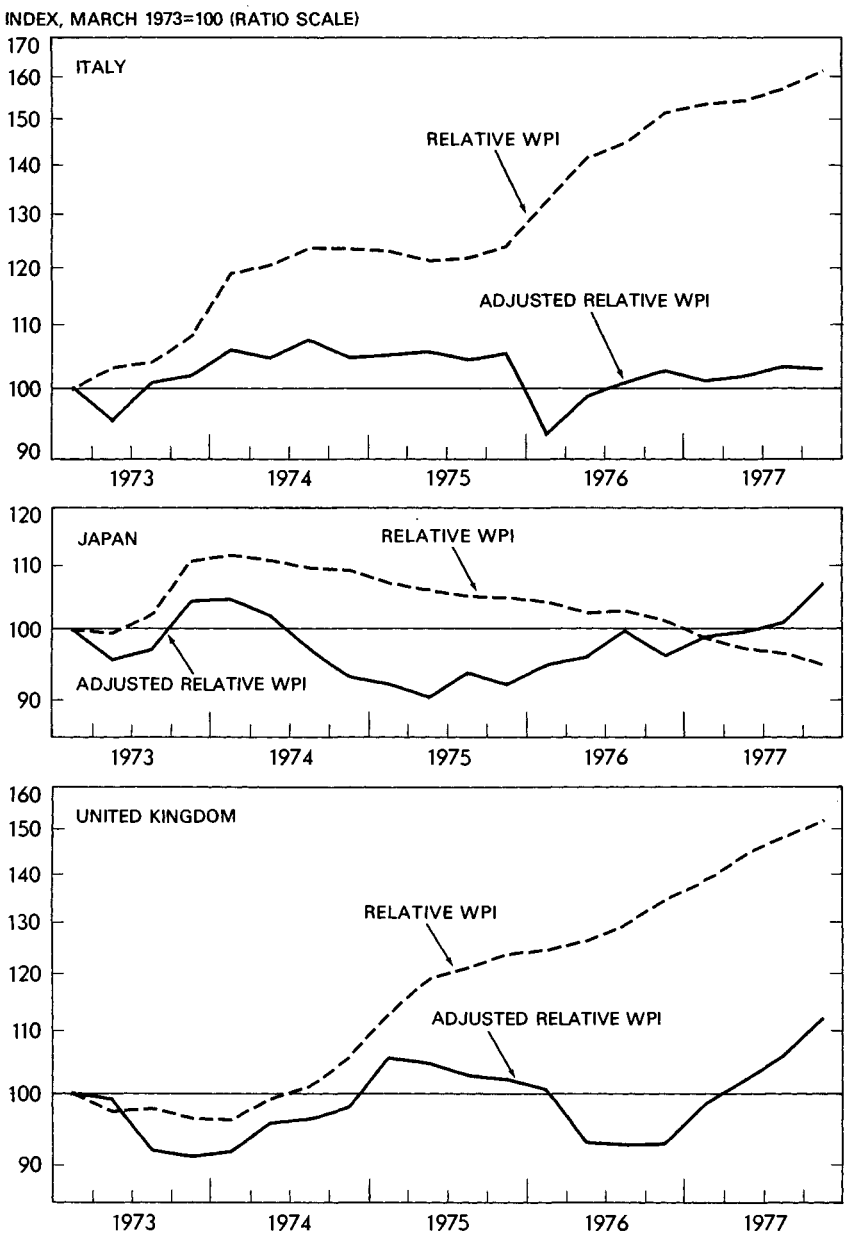


NOTE: RELATIVE WPIs ARE DOMESTIC WPIs DIVIDED BY AVERAGE OF WPIs IN TEN OTHER COUNTRIES. ADJUSTED RELATIVE WPIs ARE RELATIVE WPIs MULTIPLIED BY WEIGHTED AVERAGE EXCHANGE RATE OF DOMESTIC CURRENCY.

SOURCE: BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM.

Chart 8—Continued

Relative Wholesale Prices Unadjusted and Adjusted for Exchange Rates



NOTE: RELATIVE WPIs ARE DOMESTIC WPIs DIVIDED BY AVERAGE OF WPIs IN TEN OTHER COUNTRIES. ADJUSTED RELATIVE WPIs ARE RELATIVE WPIs MULTIPLIED BY WEIGHTED AVERAGE EXCHANGE RATE OF DOMESTIC CURRENCY.

SOURCE: BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM.

persistent. Not all imbalances can or should be dealt with through exchange rate adjustment. As noted above, it is normal and sustainable for some countries that have especially attractive investment opportunities to be capital importers, and therefore to have a deficit while others have surpluses. In addition, the aggregate deficit that is the counterpart of the OPEC surplus cannot be eliminated by exchange rate changes, although exchange rates can play a role in allocating this deficit among countries.

Finally, while exchange rate changes can have a significant impact on current account balances after 1 to 2 years, their effect initially may be perverse, since the strongest immediate effect of an exchange rate change is to raise many import prices and thereby increase the size of the deficit. This fact has two important implications. First, if imbalances seem to be temporary—owing to demand conditions that are likely to be reversed or to supply disruptions such as droughts—expectations will not be changed, and such imbalances normally will be financed by private capital flows. Exchange rates need not change. Second, when exchange markets are orderly and functioning efficiently, exchange rates will respond quickly, even abruptly, whenever it becomes clear that a country's underlying position has moved away from what is sustainable over the longer term. Once exchange markets have moved to reflect the new assessment, a return to exchange rate stability is possible even though the adjustment in trade flows may take considerable time. Capital flows can be expected to finance imbalances during the period of transition without the need for significant changes in interest rates.

The Administration's policy toward dollar exchange rates has been to let market forces determine them but to intervene when necessary to counter disorderly market conditions. This approach is based on the view that it is better to give market forces continuous influence on rates, rather than to have a period of officially determined rates followed by a sharp and disruptive adjustment. The historical experience with attempts to fix exchange rates is not an enviable one. Such policies more often than not sustained inappropriate exchange rates rather than correcting the underlying values of currencies; more often than not they generated large private capital flows that led to serious dislocations in financial markets and spilled over to affect other policy objectives.

While the Administration does not believe it is appropriate to maintain any particular value for the dollar, it recognizes its responsibility to act forcefully when market conditions become disorderly. Many managers of private foreign exchange positions normally help to stabilize the market by adjusting their positions on the basis of careful assessments of factors affecting currency values over the medium term. These managers tend to cover more of their foreign exchange exposure in the face of the increasing risks associated with market disorder. Rates are buffeted by the flow of commercial transactions and the buy and sell orders of traders whose time horizon is measured in days or at most weeks. Under these circumstances, intervention can help to restore

markets to their normal functioning. It is not the objective of such intervention to maintain a particular rate. To fix a rate would endanger the leeway that a flexible exchange rate system has provided for countries to pursue domestic objectives.

In summary, while exchange rate fluctuations sometimes have been undesirably large and are often unpleasant reminders about unsatisfactory aspects of underlying economic conditions, the evolution of the system of market-determined exchange rates has been a major achievement of this decade.

Macroeconomic Policy and Current Account Adjustment

In setting policies to achieve domestic objectives, authorities must consider the strong two-way interactions between domestic growth and inflation on the one hand, and the current account balance and exchange rate on the other. Going one way, stronger domestic demand tends to result in a larger current account deficit within a short time. Going the other way, an increase in the current account balance resulting from an exchange rate change or external factors will raise domestic output and employment.

In considering policies to achieve domestic goals, authorities sometimes find that policies appropriate for achieving domestic objectives also move the current account toward a more sustainable position. At other times, they face a dilemma. Two easy cases present no dilemma. One of these occurs when a country is falling short of its domestic goals and has a current account balance that is in surplus. Authorities should then view the current account position as an additional signal to adopt expansionary measures. The second easy case occurs when demand threatens to strain the potential of the economy. A current account deficit then reinforces the need to adopt restrictive measures. In both cases current account adjustment may take place without sacrificing domestic objectives and with policy actions reducing the need for exchange rate adjustment.

The dilemma arises when there is conflict between domestic goals and the requirement for the current account to be maintained in a sustainable range. This may occur when an economy with inflationary demand pressures has a surplus. In the world economy today, however, nations more often face the dilemma of a sluggish economy with an unsustainable current account deficit. In this case, the appropriate response is to use domestic fiscal and monetary policy to attain domestic objectives, while allowing exchange rate adjustment to restore sustainable external positions. Especially for large countries like the United States, where the economic cost of changing domestic growth is large relative to the improvement in the current account that would result, it is not appropriate to modify domestic objectives for economic growth in order to reduce the current account deficit.

A second way in which macroeconomic policy can affect the external balance is through a shift in the mix of policies. Thus a country might shift to a tighter monetary policy and a more expansionary fiscal policy when

faced with a large current account deficit and a weak currency. In principle, such a change in the policy mix could be made with an unchanged GNP growth target. If investment were undesirably strong, and if it were thought that the current account deficit would soon improve, such a change in the mix of policies might be appropriate. In practice, however, differences in the lags with which each policy works and the uncertainties surrounding their effects make a shift of this kind difficult to achieve. Such policies also have effects on the composition of demand and output. First, to the extent that they strengthen the currency they reduce exports and increase imports with a significant time lag. Second, they tend to shift demand away from private investment and toward other forms of spending, thus reducing the rate of capacity growth.

It should be noted that allowing exchange rates to adjust when a country's domestic objectives and external positions are inconsistent has effects on the domestic economy that must be taken into account in setting domestic objectives and policies. Appreciation of a country's exchange rate tends to depress demand. Depreciation tends to add to inflationary pressures by raising import prices, and to reduce real incomes as imports become more expensive.

Thus, when exchange rate changes do occur, they must be supported with monetary and fiscal policy if an unchanged domestic growth target is to be met and if the full adjustment of the current account is to be realized. Countries with appreciating currencies will face a slowing of demand growth as exports are reduced and imports rise. If these effects are not offset by stimulative policies, the economy will slow and some of the potential adjustment will not be realized, since import growth will be retarded along with the slowing of domestic demand. Countries with depreciating currencies will experience a stimulus to demand that may also have to be offset. Whether the adjustment of policies should be greater in countries with appreciating or with depreciating currencies should depend on whether the countries are undershooting or overshooting their internal goals for output and employment.

It should also be noted that adjustment through exchange rate movements succeeds only if the improvement in competitiveness of countries with depreciating currencies is not undone by higher wage and price increases to maintain workers' purchasing power or to obtain higher profit rates. In those economies where such wage and price adjustments are rapid and nearly proportional to exchange rate changes, gains in competitiveness from exchange rate depreciation evaporate quickly. Adjustment through exchange rate change is much more difficult and costly in terms of inflation. Such countries may be forced to accept depressed demand as the only effective way of reducing a deficit. Hence structural measures by authorities that retard the pass-through of import price increases into domestic prices and wages have a high payoff in allowing less costly external adjustment.

Strengthening International Financial Institutions

Private financial institutions have been the main source of financing for the large current account deficits since the oil crisis—accounting for roughly three-fourths of the total flows from 1974 to 1976. During this period, current account deficits totaled $225 billion, and countries in deficit borrowed over $300 billion. Some inflows, particularly in industrial countries, have been a private response to market incentives. A large share of the financing for many countries, however, has been raised by governments or by government-controlled corporations from private international banks. Private and official net borrowing from international banks by countries in deficit totaled an estimated $160 billion over the 1974 to 1976 period. These banks in turn received funds directly or indirectly from countries in surplus. Funds raised by countries in deficit from other private sources, including international bond issues and direct investment inflows, totaled about $100 billion.

About one-fourth of all current account financing, or more than $50 billion, was financed through official credits. These credits have played a crucial role in the overall financing process by providing assistance to countries with limited access to financial markets. Without official financing a number of countries would have been forced to take overly drastic measures and reduce their current account deficits at an excessively rapid pace. Such measures would have been disruptive to their own economies and to the world trading system. Moreover, in the absence of official financing, deficits would become concentrated in fewer countries. Some countries that have been able to meet their needs from private markets would find their access to private credit jeopardized by larger deficits. Thus the availability of a continuing flow of official financing to countries has been essential to the stability of the world financing system and to the continued flow of financing through private financial institutions.

Two long-established sets of multilateral institutions have played a major role in providing financing during the recent period: the international development banks and the International Monetary Fund. The international development banks—the World Bank group and regional development banks—provide financing for sound development projects and assist developing countries to formulate appropriate development strategies. In doing so they help meet countries' overall financing needs while fostering investment in productive activities that will generate the funds needed to service the debts. Their new credits totaled $9.2 billion in the year ending June 30, 1977. These institutions had more than $60 billion in loans outstanding then.

Part of the resources of these institutions are provided by governments in the form of capital subscriptions and direct contributions. For their nonconcessionary activities, however, the development banks rely heavily on securities issued in international markets and this reliance on debt has been increasing. In order to preserve their well-deserved reputation for prudent and sound financial management and their key role as a source of

capital to developing countries for productive long-term investment, an increase in resources contributed by governments is needed.

Strong U.S. support for the development banks is essential to their continued ability to assist developing countries. Through such support, the United States can both enhance the stability of the international financial system and respond to the needs of the developing countries. Moreover, U.S. resources devoted to these institutions are multiplied by contributions from other countries and by funds raised from markets. In 1977, legislation was enacted authorizing over $5 billion for increased U.S. participation in these institutions. Appropriations in support of the development banks for fiscal 1978 were $1.9 billion, an increase of 70 percent over the year before. This demonstrates strong U.S. commitment to these institutions, but further large sums will be needed in the years ahead to maintain their strength.

The International Monetary Fund was established at the end of World War II specifically to augment the resources available to finance temporary payments imbalances in a par value system of exchange rates. While the nature and circumstances of countries' needs have been altered by the introduction of more flexible exchange rates, the need for official financing of deficits has continued. A country that draws on Fund resources must satisfy conditions laid down by the Fund to assure that policies are consistent with adjustment of the country's external position. The goals are a current account that is sustainable without continued official support and repayment of the drawing. Thus the operations of the Fund not only finance deficits but also constructively influence policies.

The large current account imbalances since 1974 have resulted in heavy demands on the Fund. It provided about $15 billion of financing in the 1974–76 period. The IMF has also found it necessary to broaden its view of appropriate adjustment. Whereas the previous expectation had been that adjustment could take place and drawings could be repaid within 3 to 5 years, it has not been possible to eradicate the aggregate oil deficit so quickly. The IMF membership has responded to the new circumstances by increasing the resources of the Fund's general account and raising the limitations on countries' drawings. In addition, a temporary "oil facility" was set up in 1974 to help countries meet their larger oil bills. The resources for this facility, which concluded its lending program in 1976, were provided primarily by oil-exporting countries, but several industrial countries also contributed substantially.

As OPEC countries have continued to pile up assets, a continuous flow of new financing has been needed. The IMF's usable resources have fallen to about $5 billion, with another $3 billion available from larger countries only for lending to other large countries under the General Arrangements to Borrow. These resources will be increased by another $6 to $7 billion when the sixth quota review has been ratified by enough member governments. Even with these additions, however, the Fund's resources will be in-

adequate to assure available financing for those countries that need it. Moreover, there is a particular need for long-term funds.

To meet this need the decision was made to seek to establish the Supplementary Financing Facility, which initially would have about $10 billion provided by seven industrial countries and seven OPEC members. These funds would be available over the next 2 to 3 years to countries whose balance of payments needs exceed the amount available under the IMF's regular policies and require a longer period of adjustment than provided for under regular IMF policies. Borrowing countries must undertake to adopt corrective economic policy measures to deal with their balance of payments problems. When established, the Supplementary Financing Facility can make an important contribution to the stability of the international financial system for the next several years.

There will be a continuing need for growth in IMF resources, however, even if the Supplementary Financing Facility is established. Discussions are now under way in a seventh review of quotas. A further increase in quotas will be required to ensure that the IMF has sufficient resources to meet the legitimate demands on it over the longer term.

TO ACHIEVE GREATER STABILITY OF COMMODITY PRICES

The central role of food, fuel, and other raw materials in the domestic and world economies in recent years has been noted in every chapter of this *Report*. Although price fluctuations are always the norm, commodity prices have shown more than normal volatility over the last 5 years. The 56.4-percent rise in *The Economist* index during 1973 was the largest rise in the last 80 years. Nonfuel commodity prices have leveled off since 1974, but the economic aftershock and fears of renewed bursts continue to be of concern today.

The increased volatility of commodity prices has caused serious economic dislocations in virtually all countries. In consuming countries, rising commodity prices in 1973 and 1974 were reflected in final product prices, fueling an inflationary wage-price spiral. Yet because of asymmetries in response, the subsequent decline in several key commodity prices did not evoke a comparable downward movement of wages and prices. Periodic declines in the prices of certain commodities over the past few years placed severe external constraints on developing countries that derive a substantial fraction of export earnings from sales of those commodities. Consequently, these countries have borrowed heavily on world markets and have been forced to curtail their purchases of goods from industrial countries in an effort to conserve their foreign exchange reserves.

The Need to Reduce Volatility

Random variations in weather, cyclical movements in demand, and political disturbances, along with the relative insensitivity of supply and demand to price changes, have made sharp price movements the rule rather than the

exception for primary commodities. Private precautionary and speculative stockpiles and the development of organized commodity markets have in general allowed these fluctuations to be partially buffered. Private participants in these markets who sell their stocks when prices are relatively high and accumulate stocks when prices are relatively low exert a price stabilizing influence. The importance of these stocks is illustrated in the case of grains, where prices are more closely related to stock levels than to production flows (Chart 15, Chapter 5).

A reduction in the volatility of commodity prices would serve a number of useful purposes. Aside from the relatively modest advantage to consumers of having more predictable price movements, moderation of price fluctuations lowers inflation by reducing the impact of the asymmetries in the relationship between commodity prices and general inflation. Producers also benefit, as countries in which price movements in a single commodity have a major impact on national income can achieve more stable economies. Furthermore, a lower level of price volatility would reduce producers' risks and remove an important deterrent to the development of greater supplies. Finally, major price movements sometimes induce governments to introduce rigid price and income support programs, with the kinds of problems discussed in Chapter 5. Once introduced, these programs develop their own momentum and can engender a new set of inefficient and price-raising side effects.

Unfortunately commodity price stabilization is neither politically easy nor economically costless. The economic costs of stabilization schemes are often paid through direct government outlays. Alternatively, the costs of stabilization may be paid directly by consumers through higher average prices. Some types of programs require capital outlays that could otherwise be used for investment in productive equipment. The benefits of any proposed program to reduce volatility must be weighed against these costs.

One price stabilizing technique is to encourage large stockholdings by the private sector. In the United States this is done for grains by subsidizing interest and storage costs, as in the Administration's farmer-held reserve discussed in Chapter 5. The costs are direct budgetary outlays that can be compared to the benefits of holding larger stocks. Outside of agriculture the United States has no major programs to encourage stockholding; but some European countries have instituted tax preferences for inventories, thereby encouraging larger commodity stocks and smaller price fluctuations.

Publicly held buffer stocks are another widely recognized stabilization tool. These usually require purchases and sales of the commodity to defend predetermined floor and ceiling prices within the limits of available financial resources or commodity stocks on hand. The effectiveness of such programs depends largely on the financial resources available for the programs, and on the rules governing the prices at which buffer stocks are bought or sold. In international discussions the United States has therefore favored pure

buffer stock programs, which, if properly designed, would not raise the average of the price over time.

Commodity stabilization programs may include production and export controls to defend established price floors. While direct budget outlays are thereby avoided, systems involving production controls are likely to involve serious economic inefficiencies. While the ability of a buffer stock to affect prices is limited by its financial resources, production and export controls can indefinitely hold prices higher than they would be without them. Because the productive potential is unused rather than used to build buffer stocks, such programs can prevent prices from falling, but they cannot be used effectively to keep prices from rising.

Producers' vulnerability to sharp changes in income because of commodity price and quantity fluctuations can also be reduced through international efforts providing loans or grants to producer nations. Such transfers do not affect the price of commodities in the market place, but they can ameliorate the adverse impact of sharp price declines on producing countries. Compared to actions that raise the level of commodity prices, these compensatory measures are a more efficient and less inflationary way to transfer resources between countries. The Compensatory Financing and Buffer Stock facilities of the IMF and the STABEX system of the European Economic Community are operating at present to mitigate the impact of commodity price instability.

Recent Policy Developments

Since 1972, increased attention has focused on arrangements to stabilize commodity prices through internationally managed stockpile programs. International discussions under the auspices of the United Nations Conference on Trade and Development (UNCTAD) led in 1976 to enunciation of the UNCTAD Integrated Commodities Program. This program has provided the framework for discussions on a number of commodities of interest to the developing countries and on a "common fund" for international commodity agreements.

In 1976, and again in 1977, the idea of a common fund to provide additional financial support for international commodity agreements was a focal point of the North-South economic dialogue. As envisioned by the developed countries, the common fund would pool the resources of individual commodity agreements (ICAs) and enable those ICAs needing additional funds for stock accumulation to borrow through the common facility from other ICAs and from the private market. By pooling resources in a common fund, overall financial contributions by member nations to individual stockpiling agreements could be reduced because all ICAs would generally not be accumulating stocks at the same time. Moreover, because it would have broader-based financial backing, a common fund would probably find more ready acceptance in world credit markets than individual com-

modity agreements. The United States is prepared to participate in a common fund that is structured along these lines.

At the London Economic Summit in May 1977, the seven heads of state noted that it was their goal "to secure productive results from negotiations about the stabilization of commodity prices and the creation of a common fund for individual buffer stock agreements."

Developing countries envision a broader common fund financed by direct government contributions. Such a fund would serve as a source of finance for commodity agreements and would also supplement the functions of existing international financial institutions. Negotiations during 1977 were unable to bridge the conceptual gap between alternative versions of the common fund. However, negotiations will continue in 1978.

The United States attaches great importance to talks on individual commodities. While discussions on a common fund proceed, the United States is participating in talks involving several individual commodities. The United States joined the International Tin Agreement in 1976. Discussions on a commodity agreement for natural rubber, in which the United States has taken part, have made progress, and preliminary discussions on other commodities are getting under way.

Discussions on a system of nationally held wheat reserves, begun in June 1975 under the auspices of the International Wheat Council, are continuing in 1978. The United States favors a new International Wheat Agreement with a reserve system to replace the expiring agreement, which has no such provisions. In the U.S. proposal, each participating country would release or acquire reserve stocks at specified target price levels. Member consultations on additional measures would also be required in the event of extreme oversupply or shortage situations.

There were several major policy developments for sugar in 1977. In March the U.S. International Trade Commission (ITC) found, upon petition, that the domestic sugar industry was being threatened with serious injury by increased imports. It recommended a 5-year annual quota on sugar imports of 4.275 million tons. The President rejected the recommendation, however, and established an interim program of direct payments to U.S. producers. Congress later mandated a program to support the price of sugar in the U.S. market at a minimum of 13.5 cents per pound, but stipulated that it could be terminated if an international sugar agreement would achieve the same objective.

The Sugar Conference sponsored by the United Nations concluded an agreement in October 1977, which comes before the U.S. Congress for ratification early in 1978. The agreement sets minimum and maximum price targets of 11 and 21 cents, respectively. These targets will be defended through a system of export quotas and reserve stocks held by exporting countries. The carrying costs of the stocks will be financed through a fee levied against all sugar traded by member countries. Export quotas will remain in effect until

the world market price rises above 15 cents, a feature that may lead to production cutbacks after exporting countries have accumulated their mandated stockpiles.

This review of the analytical aspects of commodity price stabilization, alongside the reality of actual agreements, highlights critical issues of their design. On the one hand, policies to increase the size of private stockpiles or to develop public buffer stocks can help reduce long-run inflationary pressures. The history of the last 5 years has shown that drastic commodity price movements can hinder economic growth. Yet these commodity programs prevent prices from falling as stocks are acquired, and they absorb scarce capital in stocks that are essentially sterile outlets for a nation's savings. In addition, an agreement that restricts output will raise the long-run average price of a commodity and should be avoided. Higher long-run prices impose costs on commodity-importing developing countries that rank among the world's poorest nations. Alteration of the long-run price trend would also impair the ability of the price system to allocate resources efficiently. For these reasons, the United States will continue to give priority to pure buffer stocks as a price stabilizing technique. Each prospective commodity agreement must be examined in great detail to determine whether it contributes to or detracts from economic performance.

TO MAINTAIN THE GROWTH OF WORLD TRADE

Over the past 25 years world trade has grown more rapidly than world output, playing a key role in economic expansion by widening available markets for raw materials, industrial products, and agricultural goods. During this period the volume of world trade showed a fivefold increase—an average growth of 6.6 percent per year. This growth was facilitated by a major movement to reduce tariffs and other trade restrictions under the auspices of the General Agreement on Tariffs and Trade (GATT). The Kennedy Round of tariff negotiations, which was completed in 1967, resulted in an average reduction of one-third in the tariffs set by industrial countries on industrial products. The growth of world trade was also supported by the reduction of trade barriers on a regional basis, such as the elimination of tariffs within the European Common Market. In 1970 agreement was also reached on a generalized system of preferences for industrial countries' imports from developing countries.

The growth of world trade has slowed since 1974; trade volume was estimated to have expanded only 4 percent in 1977. The slower growth of trade is mainly attributable to the general weakness in the world economy. However, there has been a disturbing reversal of the trend toward trade liberalization; this development has also contributed to the slowing growth of trade. The GATT Secretariat has estimated that new restrictive trade measures have been imposed on 3 to 5 percent of world trade since 1974.

The worldwide pressure for protection from imports was also evident in the United States. In 1977 the ITC investigated petitions for import relief by over 20 industries, covering imports of nearly $5 billion. The ITC recommended increased protection in the form of tariffs or quantitative restrictions on $3 billion of trade, including shoes, color television receivers, mushrooms, and above-ground swimming pools.

The Benefits of an Open Trading System

Despite rising domestic pressures for protection from imports at home and abroad, the Administration remains committed to a policy of open markets for both U.S. exports and imports. The case for open markets and against import restrictions is strong. In an open trading system a country will export those goods it can produce at relatively lower cost than other countries and import goods that other countries can produce at lower cost. Countries thereby realize gains from trade that make possible higher levels of consumption and investment. Import restrictions reduce these gains. Through an open trading system the United States can obtain larger quantities of goods for consumption and investment than it could by restricting imports and diverting resources from export industries to import-competing industries.

In addition to reducing the gains from trade, the imposition of import restrictions has an immediate inflationary impact. Consumers pay higher import prices and usually higher prices for domestic substitutes as well. Competition from imports not only helps to keep prices down but fosters efficiency and responsiveness among domestic producers. For example, production of attractively priced American small cars has obviously been hastened by the availability of small, low-priced, fuel-efficient imports.

Import restrictions do not increase employment, even if potential retaliation against exports is ignored. As a result of decreased imports and higher domestic prices, there may be an increase in domestic output and employment in the industry that is granted protection from imports. But the higher prices associated with reduced import competition reduce real consumer incomes and hence tend to reduce real consumption and output. In the absence of changes in overall economic policy, the net effect of these opposing tendencies in the protected industry and in the rest of the economy is usually a *reduction* of real output and employment. Only in the rare instances when import protection results in very small price increases and very large import reductions will protective measures increase employment.

Responses to import restrictions will make the net employment reduction larger. Unilateral imposition of new tariffs or quotas invites retaliation through higher barriers for our exports. Indeed GATT rules allow tariffs to be raised on imports from a country that imposes unilateral trade restrictions. Induced upward exchange rate adjustment also decreases the demand for exports. Thus, in most cases, import protection has the effect of shifting

employment from dynamic export industries to contracting import-competing industries, while reducing aggregate employment.

Recent restrictions have primarily taken the form of quotas, import licensing requirements, and other nontariff barriers to trade. Quantitative restrictions are more damaging than equivalent tariffs to an open system of world trade. During recessions they provide less protection from imports at a time when business and labor are in a weaker position; during expansions they do not permit imports to play their role as safety valves, limiting sharp price increases when supplies are tight.

Dealing with Trade Problems

Although the advantages of an open trading system are widely understood, two conditions give rise to demands for protection. First, as markets evolve, countries lose comparative advantage in some products and gain comparative advantage in others. For example, as developing countries have entered markets for products that rely primarily on well-established technologies, the more advanced industrial countries have found their comparative advantage shifting to products using more skilled labor and more sophisticated technology. However, firms in industries that have lost markets to new competitors have capital in place, and their workers have specialized skills that make shifting to new industries costly for them. Their demands for protection from imports are often more effectively voiced than the demands of consumers for lower prices, even though the gains to consumers from an open trading system outweigh the costs to domestic firms and workers.

Second, excess capacity and high unemployment increase domestic sensitivity to competition from imports. Under these conditions, displaced labor and capital are less likely to be absorbed in industries where the United States has a comparative advantage. Moreover, imports that might have been considered a welcome supplement to limited domestic production in some industries during periods of high employment are blamed for domestic unemployment during periods of low utilization. Economic slack abroad also adds to trade tensions because it provides an incentive for some foreign producers to increase exports by cutting prices in the U.S. market. Selling abroad at less than home market prices constitutes grounds for assessing countervailing duties under GATT rules if the domestic industry is injured.

Adjustment assistance. The Federal trade adjustment assistance programs are designed to facilitate the adjustment of workers, firms, and communities injured by import competition. They provide readjustment allowances, training, and relocation payments for workers displaced by import competition. Technical and financial assistance is provided to affected firms, and public works money is allocated to trade-impacted communities. The Administration reviewed these programs in 1977 and is implementing a number of administrative improvements. A major effort has been undertaken to speed up and improve the delivery of assistance, and efforts have also been made to tailor assistance to the needs of particular industries.

Import relief. Problems created by rapid growth of imports in several industries were so acute that the Administration established temporary import restrictions. These restrictions were intended to provide an opportunity for the affected domestic industries to stabilize, to permit firms to take measures to restore competitive positions, and to allow for more orderly adjustment. In two major cases—footwear and color television receivers—where the International Trade Commission had found that increased imports were a substantial cause of serious injury to the domestic industry, the Administration decided to provide temporary import relief. Temporary orderly marketing agreements (OMAs), which are negotiated quotas, were established with major exporting countries. These OMAs will halt the rapid rise of imports and give domestic producers an opportunity to adjust to import competition over the longer term.

Steel trigger prices. Developments in the carbon steel industry presented the Administration with a particularly difficult trade policy problem. Steel industries throughout the world have been especially hard hit by the protracted weakness of economic activity in the industrial countries. Even under moderately optimistic assumptions about the growth of demand, excess steelmaking capacity is likely to persist through 1980.

The cost of production of steel in the United States rose by 89 percent over the past 5 years, according to a study by the Council on Wage and Price Stability (CWPS). The increase in costs was to a significant extent the result of developments within the industry itself. In part, they were the reflection of broader economic forces. Steel wages have risen 27 percent faster than the average manufacturing wage from 1972 to 1977. Raw material and energy costs—particularly coal—have shown very sharp price increases, while pollution abatement costs have risen sharply and will be an increasingly important component of costs in the future. According to CWPS, however, costs have also risen rapidly abroad and the domestic cost of production is not significantly above that of efficient foreign producers plus transportation and tariffs.

Poor domestic sales, reflecting sluggish demand and an increase in the import share, led to a drop in steel production in 1977. This development and other factors led to a series of layoffs and plant closings in 1977. These were concentrated in older steel plants in Ohio, Pennsylvania, and New York. This pattern was dictated by the desire of domestic firms to consolidate their operations in their most efficient installations. The timing and allocation of the layoffs were also affected by provisions in the new labor contract that will increase the cost of layoffs after 1977. The cost of meeting environmental standards at older facilities also played an important role. Thus, the layoffs reflected efforts by the industry to reduce costs over the long term, as well as to respond to the immediate problem of weak demand and import competition. Although several factors contributed to the layoffs, public attention focused on the problem of imports.

The industry filed a series of dumping cases in 1977, some of which led to findings that foreign steel was being sold in the United States below full

costs of production. In light of evidence that significant volumes of foreign steel may have been dumped, the Administration developed a program designed to respond to the problems of the steel industry. The centerpiece of the program is a system of trigger prices for steel imports, based on the cost of production in the most efficient foreign country—currently Japan. If imported steel is sold in the United States below the trigger price for that product, an antidumping investigation will be initiated immediately by the Department of the Treasury. The industry maintains the right to file petitions under the regular procedure. Nevertheless, it is hoped that the system will eliminate the necessity for anti-dumping actions.

The trigger price concept has significant advantages over alternative measures. Although in a static and certain world of perfect competition a trigger price, a quota, and a tariff that gave the same protection would have the same effects on prices, their effects differ in practice. A tariff that assured the same protection would have directly increased steel prices by more than the trigger prices will. A quota would have resulted ultimately in an even larger rise in the price of imported steel and reduced competition in steel markets; it would also have undermined incentives for domestic producers to control costs and prices. Under the trigger price system, domestic producers will continue to face foreign competition at prices that reflect the costs of effiicent foreign producers. If domestic steel prices are set to meet this competition, domestic producers should be able to regain the market share they lost in 1977.

Progress in Multilateral Trade Negotiations

The Administration has been working with foreign governments to reverse the worldwide slip toward more restrictions on imports and restore the trend toward trade liberalization. These efforts are centered in the round of multilateral trade negotiations now being held in Geneva. After being stalled for some time, the negotiations made significant progress in 1977 with agreement among the major participants on key procedures that will guide the negotiations during 1978. A working hypothesis was developed calling for an average reduction of tariffs on industrial products of about 40 percent. Procedures were established for participants to exchange requests for the reduction of agricultural tariffs and of specific industrial and agricultural nontariff barriers to trade. Draft texts aimed at improving international trading rules were prepared for use as the basis for further negotiation. In January 1978 countries are exchanging specific offers for reductions of tariff and nontariff barriers. This exchange marks the beginning of the final phase of the negotiations.

The trade negotiations are being conducted under difficult conditions in the world economy. These same conditions make it essential that agreement on significant liberalization be reached, however, so that further steps toward protection can be averted, the dynamism of world trade can be restored, and the potential contribution of trade expansion to overall economic growth can be realized.

CHAPTER 4

Inflation and Unemployment

THE HISTORY OF INFLATION during the past 10 years has been dominated by two major episodes. In each of them a series of events set off a burst of inflation, followed by a period of economic slack during which the rate of price increase subsided only partially. The end result in both instances was a persistently higher rate of inflation. For the last 3 years, the underlying rate of inflation has remained in the 6- to 6½-percent range despite very high rates of unemployment.

Since 1970 similar developments have characterized the economies of other industrial nations. Throughout the industrial world, economic policy is now confronted with the simultaneous existence of substantial unemployment and strong inflationary momentum.

It is not difficult to identify the sources of the two inflationary episodes during the past decade, nor is it surprising that the resulting inflations were serious, given the magnitude of the initiating forces. What does pose major problems for both economic theory and policy is the persistence of inflation: why it keeps its momentum long after the initial shocks have disappeared and in the face of idle plant and unemployed workers.

Over the next several years, even as recovery proceeds, some slack will remain in our economy. The central task in dealing with inflation in the period immediately ahead will be to find ways to reduce the persistence of the inflation inherited from earlier years. Looking further ahead, a second major task will be to avoid a renewal of inflationary pressures or shocks as we regain a high-employment economy.

The two tasks are related. Unless we succeed in reducing the current rate of inherited inflation over the next several years—while some slack remains in the economy—any tendency for price and wage increases to accelerate in later years will raise the inflation rate from an already high base. If that should occur, prospects for maintaining a stable rate of economic growth with high employment would be endangered.

The problem of inflation amidst unemployment is dealt with here in three parts. The first reviews the two inflationary episodes of the past 10 years and emphasizes the distinction between the initiation and the perpetuation of inflation. The second addresses the particular problem of the present and

the immediate future: the momentum of inflation inherited from the past. In doing so, it discusses the forces producing that momentum in the face of economic slack, reviews alternative ways of reducing the inflation rate, points up the advantages and disadvantages associated with each alternative, and outlines a "deceleration standard" for reducing inflation. The third part of the chapter looks farther ahead to the task of preventing the recurrence of renewed inflationary pressures as high employment is approached, focusing on the role of structural employment policies to improve the operation of the labor market and thus to reduce the inflationary pressures associated with an economy near capacity. This section also discusses the need for rapid investment growth to avoid inflationary bottlenecks and scarcities as industrial capacity utilization increases.

A REVIEW OF THE PAST 10 YEARS

EPISODE I: EXCESS DEMAND IN THE LATE 1960s

The current inflation had its roots in the late 1960s. During this period the economy reached very high levels of employment and resource utilization. The unemployment rate was less than 4 percent in every year from 1966 through 1969, when it reached 3.5 percent, the lowest rate since the Korean war. The major factor initiating inflation was the traditional one of excess demand. The economic stimulus from expenditures for the Vietnam war was added to an economy already approaching high employment. The rate of inflation in consumer prices rose from less than 2 percent in 1965 to over 6 percent in 1969.

If the Vietnam war had been financed out of increased taxes, the economic consequences of the added war expenditures would have been less serious. But the temporary increase in taxes in 1968 came well after strong demand pressures had already triggered a significant acceleration in price and wage inflation. Moreover when taxes were raised, monetary policy became more expansive for a brief period, offsetting some of the contractionary impact of the tax increase.

The 1970 Recession

The recession which began in late 1969 undid much of the reduction in unemployment that had been achieved over the prior decade, as the unemployment rate rose to 6 percent by the end of 1970. Yet inflation continued at a rapid pace. The advance of consumer prices did slow, but much of this reduction was due to the impact of declining mortgage interest rates on the consumer price index (CPI). If mortgage interest is excluded, the consumer price index showed little deceleration—from 5.7 percent in 1969 to slightly over 5 percent in 1970 and the first half of 1971 (Table 19). The increase in average hourly earnings in the private nonfarm sector actually accelerated during this period.

TABLE 19.—*Changes in consumer prices, all items and selected components, 1970–77*

[Percent change [1]]

Component	Relative importance, December 1977 (percent)[2]	1970	1971	1972	1973	1974	1975	1976	1977
All items	100.0	5.5	3.4	3.4	8.8	12.2	7.0	4.8	6.8
Food	24.0	2.2	4.3	4.7	20.1	12.2	6.5	.6	8.0
Energy [3]	7.4	4.5	3.1	2.8	16.8	21.6	11.6	6.9	7.2
Mortgage interest	4.3	6.9	−11.0	−.9	14.7	10.5	−3.1	−4.8	1.9
Other items	64.3	6.0	3.8	3.1	3.8	10.7	6.7	6.6	5.9
Medical care	6.9	7.3	4.8	3.3	5.2	12.4	9.9	10.1	8.8

[1] Change from December to December, not seasonally adjusted.
[2] Detail may not add to total due to rounding.
[3] Gas and electricity, fuel oil and coal, and gasoline and motor oil.

Source: Department of Labor, Bureau of Labor Statistics.

The inflation would not have persisted during the 1970 recession if wages and prices were very sensitive to economic slack. On the basis of the experience of that period, and the similar one more recently, estimates of the size and duration of the demand restraint and output loss that it takes to slow inflation have been revised sharply upward.

Wage and Price Controls

In reaction to the failure of inflation to abate, a wage and price freeze was announced on August 15, 1971, and was followed by wage and price controls. The initial price freeze and the subsequent Phase II of controls did reduce the rate of inflation during the final months of 1971 and throughout 1972. The rise in consumer prices moderated substantially, to about 3 percent in the last half of 1971 and throughout 1972. But the controls had no lasting effect on the rate of inflation. Their relaxation in 1973 coincided with the beginning of a series of developments that inaugurated a new round of inflation. And the increase in business profit margins, which had been squeezed during the control period, contributed to the renewed upsurge in prices.

EPISODE II: THE ACCELERATION OF INFLATION IN 1973–74

The second inflationary episode stemmed in part from excess demand. Between the fourth quarter of 1971 and the first quarter of 1973 the economy grew very rapidly—real gross national product (GNP) increased at an annual rate of 7¾ percent. Among other reasons for this growth was the expansive economic policy pursued. The high-employment budget moved from a $2.7-billion deficit in 1970 to an $11.8-billion deficit in 1972; monetary policy was also eased significantly and remained easy through 1972. Unemployment dropped sharply in 1972, and capacity utilization reached high levels, especially in the materials sector. The phased dismantling of controls during 1973 coincided with and contributed to the opening of a new episode of inflationary events.

The major inflationary pressures in 1973 and 1974, however, were not caused by domestic monetary and fiscal policy. The fall of over 20 percent in the value of the U.S. dollar from mid-1971 to mid-1973 helped to cause a rapid rise in exports. Demand for U.S. goods was also increased by the simultaneous economic expansion in all industrial countries. The high operating rates in the rest of the world accentuated the problem of tight domestic capacity, as imports were not available to augment domestic supplies. The most obvious result of this expansion was a rapid rise in prices of industrial commodities. On world markets, prices of basic industrial commodities other than oil more than doubled between mid-1972 and mid-1974. Prices of intermediate products such as primary metals and chemicals also rose sharply in response to worldwide demand.

Other special factors were also at work. Food prices surged in 1973 and 1974 as a consequence of conditions that had been evolving slowly, but were brought into prominence by a series of poor world harvests beginning in 1972. The steep increase in oil prices put into effect by the Organization of Petroleum Exporting Countries (OPEC) in late 1973 caused the energy component of the CPI to rise by nearly 22 percent in 1974 alone; from the end of 1972 through 1975 it rose by nearly 60 percent.

Although each of these special events was sufficiently important to exert a marked impact on the overall price level, the dominant influence was the rise in fuel and food prices. Its force was not limited to direct effects. The pass-through of cost increases into other prices broadened the inflation, and the rise in consumer prices led to efforts by wage earners to recover lost real incomes. The inflation in prices for consumer items other than food, energy, and mortgage interest accelerated from 3.1 percent in 1972 to 3.8 percent in 1973 and to 10.7 percent in 1974. The rate of increase in hourly earnings remained relatively stable at around 6 to 7 percent until controls were removed in April 1974, but then rose sharply to an annual rate of about 10 percent during the remainder of the year. While the rise played a part in spreading the initial shocks through the rest of the economy, it was less than the increase in prices and represented a loss in real wages for workers.

The 1973–74 experience provided vivid evidence of the potential inflationary effects of factors other than aggregate demand pressures. It was, as well, an example of the effects of the downward insensitivity of prices and wages. Price increases in one sector exerted upward pressures in others, rather than leading to a readjustment of relative prices around a stable overall rate of inflation.

THE CURRENT SITUATION

Inflation has moderated substantially from the 12-percent rate of 1974. Improved weather and agricultural production reduced prices of agricultural products at the farm. Despite higher processing costs, the rise in retail food prices during 1976 was limited to less than 1 percent. Energy prices are no longer rising at the extreme rates of earlier years. The rapid growth in prices of other materials has also moderated.

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The slowing or reversal of price increases in these sectors, together with the severity of the 1974–75 recession, did result in a significant moderation of other price increases and wage gains. In 1973 and 1974 compensation per hour rose less than prices, but still climbed sharply. The rate of increase subsequently declined from an annual rate of almost 11 percent in 1974 to about 8 percent in 1975, but has not receded further.

After initial moderation in 1975, the rate of inflation remains high and relatively stable. The rate of increase of consumer prices fell from 1975 to 1976, but then rose again in 1977. These fluctuations were principally due to erratic variations in food and energy prices. Excluding those two categories, consumer prices rose at almost the same 6- to 6½-percent rate in each year from 1975 through 1977 (Chart 9).

Even allowing for delays in the response of wages and prices to underlying changes in demand, the failure of prices and wages to decelerate over the past several years starkly illustrates the strength of the forces that support inflation in the face of substantial economic slack.

THE MOMENTUM OF INFLATION

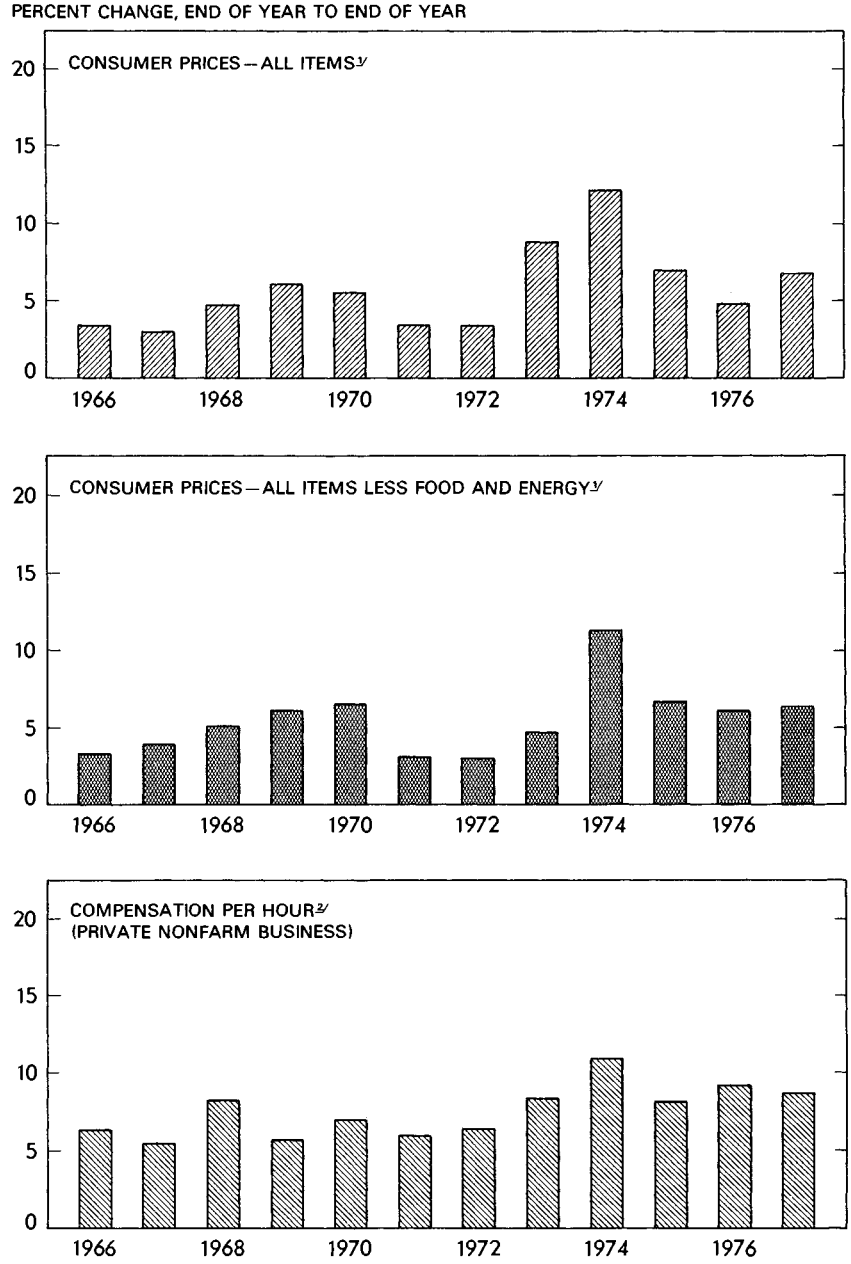
An inflationary momentum becomes built into the structure of the economy in several ways. Expectations of inflation and workers' desires to maintain their real wages lead to indexing of wage rates to price increases in both a formal and an informal fashion. Workers as well as their employers are concerned with their wages relative to other workers'. As a result, a wage increase won in one sector of the economy can generate demands for equivalent increases elsewhere, even though economic conditions in individual labor markets may vary significantly. Since an acceleration of inflation is usually uneven in its initial stages, the wage structure becomes distorted, intensifying the conflict over relative wages. The normal reaction is larger wage gains in lagging sectors rather than smaller increases in leading sectors. This process of adjustment makes it difficult to stop the inflation, even after the initiating forces have disappeared.

Widespread belief that inflation will continue also leads businesses to accede to cost increases in the expectation of being able to pass the costs forward into higher prices. These price increases become the basis for still further rounds of wage increases.

In this process of ongoing wage and price increases, it is fruitless to try to identify a villain. While there are winners and losers—some groups do a little better and some a little worse in defending their standard of living—the actual changes in the distribution of income between profits and wages have been relatively small lately. The poor performance of real wages in recent years has been the result of poor productivity gains and the higher price of imported oil, not of a shift in income away from workers to other Americans. Poor profits have stemmed principally from low capacity utiliza-

Chart 9

Price and Wage Trends



1/CHANGE FROM DECEMBER TO DECEMBER, NOT SEASONALLY ADJUSTED.

2/CHANGE FROM FOURTH QUARTER TO FOURTH QUARTER, SEASONALLY ADJUSTED.

SOURCE: DEPARTMENT OF LABOR.

tion and higher energy costs rather than from the pressure of wages on prices. The principal result of the struggle to defend living standards has been continued inflation.

Some of the factors that explain the inflexibility of prices and wages in the face of slack demand can be identified. Complex technology, specialization, and economies of scale have limited price competition in many individual markets. Price reductions are not seen as a means of sustaining revenues and profits during periods of decline in the total market, since each firm perceives that its competitors will match any price cuts. Competition tends to concentrate on other strategies than pricing: quality adjustment, for example, and the introduction of new products. The responsiveness of supply to changing demands is also reduced by the importance of fixed costs in many industries; decisions to expand capacity or enter into new markets must be based on long-term considerations rather than on more immediate changes in market conditions. The cost of entry into many major industries by new firms is often great enough to allow some pricing discretion by those already there.

The existence of formal escalator clauses tends both to increase the speed with which an inflation spreads through the economy and to perpetuate the inflation when it becomes established. In 1970 only one-fourth of workers covered by major collective bargaining agreements were protected by cost-of-living clauses; today 60 percent are (although virtually none of these clauses provide an automatic full escalation of wages to prior inflation). Many employers whose unions have escalator clauses extend the same protection to their nonunion employees. And employers without such escalators face strong pressures to grant wage rate increases that protect workers against inflation to maintain morale and productivity.

The structure of labor markets in modern industrial societies differs significantly from simple models of competitive behavior. Workers do not compete freely for all jobs. Some are denied the most attractive opportunities because of discrimination. Unemployment rates show a wide dispersion among different subgroups of the population, and the search for jobs by some workers does not fully restrain wage increases of others. Entry into the most attractive job markets is also sometimes limited by rules and practices that have often been successful in preventing increases in overall unemployment from putting downward pressures on rates of increase of wages or professional fees. Many firms, because of their interest in maintaining a stable, high-quality labor force, base wage policy on longer-term considerations. Wage rates are often determined by what is considered equitable, and prices are often set on the basis of traditional markups over cost, rather than being based on short-run demand and supply conditions in individual labor and product markets.

These characteristics of wage and price determination have been with us for a long time. Several recent developments, however, may have made the setting of wages and prices even less flexible. The cost of doing business has

been steadily increased, in good times and bad, by regulations designed to meet objectives such as clean air and water and improved health and safety of consumers and workers. Another factor may have been the substantial growth of the noncompetitive sector of the economy. This sector (government and nonprofit establishments) represents about 26 percent of total employment today as against less than 20 percent in 1960. Although employment in the regulated industries whose prices are sheltered to a large degree from competitive forces—electric and gas utilities, communications, and most forms of commercial transportation—has not grown as rapidly, wage and price behavior in this sector also differs importantly from the competitive model. By 1977 the government, regulated, and nonprofit sectors together accounted for 31 percent of total employment.

Although we cannot measure the extent to which most of these factors impede the downward flexibility of wages and prices, that flexibility does appear to have been reduced during the postwar period, especially in the case of wages. As Table 20 shows, deceleration in wages has been less and less evident with each succeeding contraction. The table exaggerates the problem, since there were strong exogenous forces driving price and wage increases up in the year preceding the cyclical peak in 1948, and even stronger forces driving them up in the recent recession. Nevertheless, some longer-term decrease in downward flexibility, especially of wages, seems evident.

TABLE 20—*Wage and price changes and unemployment rates over the business cycle*

[Percent]

Cycle	Average hourly earnings index, manufacturing[1]			Consumer price index			Unemployment rate, wage and salary workers in manufacturing		
	At cyclical peak	2 quarters after trough	Change	At cyclical peak	2 quarters after trough	Change	At cyclical peak	2 quarters after trough	Change
	Change from 4 quarters earlier						4-quarter average		
1948–49	9.1	1.9	−7.2	4.5	−0.6	−5.1	4.2	8.2	4.0
1953–54	5.8	2.4	−3.4	.9	−.6	−1.5	2.8	7.1	4.2
1957–58	5.0	3.6	−1.4	3.5	1.9	−1.6	4.6	9.3	4.7
1960–61	3.1	2.6	−.5	1.8	1.2	−.6	5.8	8.0	2.2
1969–70	6.0	6.8	.8	5.8	4.4	−1.4	3.3	6.7	3.4
1973–75	6.6	9.5	2.9	8.4	8.7	.3	4.3	10.4	6.1

[1] Adjusted for ov ertime and interindustry shifts.

Source: Department of Labor, Bureau of Labor Statistics.

At the same time, the acceleration of the inflation rate during the past 10 years cannot chiefly be blamed upon an increasing downward rigidity of wages and prices. Rather it appears to result from the relatively greater magnitude and frequency of the inflationary shocks that have occurred during the recent period, impinging upon an institutional structure of wage and price setting which, for some time, has allowed only very limited downward flexibility, especially in wage determination.

OTHER FACTORS AFFECTING THE CURRENT INFLATION

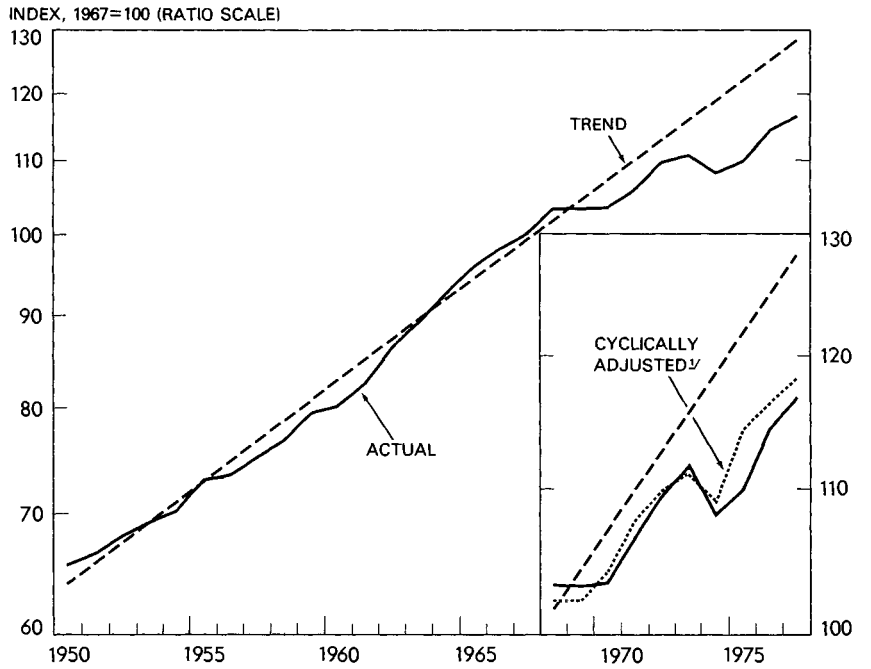
Among the factors contributing to the high inflation rates of the last decade are changes in the behavior of labor productivity, basic material costs, and price-cost margins.

Productivity

There has been only a small improvement in real incomes throughout the economy in recent years. This can be attributed to the slow growth in productivity (and the large increase in imported oil prices) rather than to a failure to gain large increases in nominal income. From 1950 through 1968 private nonfarm productivity expanded by about 2.6 percent annually (Chart 10). From 1968 through 1977 it rose by about 1.4 percent per year. Part of this difference in performance is caused by the incomplete recovery from the recession: productivity tends to grow faster than its longer-run trend when the economy is on the upswing of a cycle and slower during the downswing. But correcting for cyclical factors still leaves a difference: 2.5 percent in the

Chart 10

Productivity in the Private Nonfarm Business Economy



1/THE CYCLICAL ADJUSTMENT IS BASED ON A REGRESSION OF PRODUCTIVITY ON THE CURRENT AND LAGGED UNEMPLOYMENT RATE FROM 1950 TO 1968.

SOURCES: DEPARTMENT OF LABOR AND COUNCIL OF ECONOMIC ADVISERS.

earlier period against 1.6 percent in recent years. This slowdown is one of the most significant economic problems of recent years. Gains in real living standards must come primarily from improved productivity. Without gains in productivity, improvement in real incomes for some Americans can come only at the expense of others.

In the short run, rapid productivity growth also helps to contain inflation. To the extent that nominal wage gains are determined by the inertia and expectations discussed earlier, productivity growth provides a margin between rising money wages and unit labor costs and thus contributes to lower inflation rates. The substantial growth in productivity was a major factor in the stable price environment of the 1950s and 1960s. A continuation of the slower growth in productivity that has prevailed since 1968 would imply a very stringent limitation on real income growth. It would also increase the difficulty of achieving moderation in the inflation rate.

The causes of the apparent decline in the rate of productivity growth are varied and their effects hard to quantify. Some of the decline may result from the gradual adjustment of the economy to higher energy prices, as more costly resources are substituted for previously cheap energy inputs. But this explanation cannot account for the slower growth before 1974. There is, of course, no reason why productivity should follow a constant upward trend. Since its growth represents the combined effects of technological innovations, changes in skills and education of the work force, improvements in organizational techniques, and a host of other factors, changing patterns should be expected.

The change in the demographic composition of the labor force has also been proposed as an explanation of the slow growth of productivity in recent years. The rise in the proportion of women and younger workers has been a factor in the rise of the unemployment rate, and it might be natural to attribute some slowing of productivity growth to the same phenomenon. But the facts do not support this conclusion. What is important for the growth of productivity is not the share of a particular group in employment, but the growth of that share. Although the percentages of younger workers and of women in total employment have been growing since 1968, the percentages were also growing before 1968. The percentage of younger workers (aged 16 to 24) grew by 0.4 percent a year from 1955 to 1968, and at the same rate since 1968. The growth of the percentage of women in total employment has also remained virtually unchanged, at 0.4 percent. Since these increases have been stable, they cannot have accounted for any significant reduction in the growth rate of productivity.

A more promising explanation may be the behavior of the capital stock. From 1947 to 1968 the capital-labor force ratio grew at an annual rate of about 3 percent. Since then it appears to have grown more slowly, by about 1 percent a year. If one adjusts for the proportion of capital required to meet pollution abatement and safety regulations, the capital-labor ratio would

show even less growth. This apparently explains at least some of the slower growth in productivity since 1968.

The accelerated introduction of governmental regulations dealing with environment, health, and safety may also have been responsible for some of the slowdown in official measures of productivity growth. To the extent that additional resources are devoted to specific identifiable activities required to meet environmental, safety, and other social regulations, the effects on productivity are, at least conceptually, measurable. But much of the effect may have come indirectly, through increased limitations on the choice of sites and raw materials, delays in construction, and constraints on production processes. The effect of these is virtually impossible to quantify. Increased regulation has undoubtedly had an impact, but its magnitude remains a matter of conjecture. Insofar as these programs result in improvements in public well-being, we may simply have taken part of our productivity gains in forms that are not measured in GNP.

Much of the low recent growth in productivity may come from the effect the extreme instability of the economy since 1968 has had on investment. Sustained balanced growth may make a substantial contribution toward restoring a more rapid growth of investment, and thus of productivity.

Profit Margins

Firms seemed to absorb part of their cost increases during the late 1960s and the early 1970s, rather than passing them on fully to purchasers. Consequently profit margins declined substantially. Profit margins, adjusted for the effects of inflation, have improved since 1974, however, and appear to be close to their post-World War II average when allowance is made for capacity utilization. (See Chapter 1.) This situation does not characterize all industries, of course, and some movements in prices relative to costs will take place. But as far as the economy as a whole is concerned, attempts to increase profit margins by increases in prices relative to costs should not seriously affect inflation in the near future.

Costs of Materials

From the end of the Korean war until the late 1960s the prices of raw materials declined relative to the general price level. This was an important factor in moderating inflation during this period. The decline was due to a variety of factors, including a large overhang of excess processing and mining capacity, the discovery of large low-cost oil fields abroad, expansion of capacity in foreign countries, major technological improvements in agriculture and mining, a more extensive global search for raw materials, and a major reduction in overseas transport charges. For example, yields per acre of corn in the United States increased by 125 percent from 1950 to 1969, largely because of improved hybrid seeds, better fertilization and pest control, and improved cultural practices.

This downward trend in relative prices of materials came to an abrupt end in 1973. In that year alone raw materials prices rose 40 percent. This explosive rise can be attributed to lagging growth of capacity during prior years, a series of crop failures in several areas of the world, the enormous growth in demand created by the simultaneous economic expansion in the industrial countries, the development of speculation and a "shortage mentality," and above all the actions of OPEC. This explosion appears to have ended. Although there is no reason to believe that prices of raw materials will climb as abruptly in the near future as they did in 1972–74, neither should one expect them to decline relative to other prices, as they did prior to 1970.

Government Policies

Government policies directly affect the price level. The most obvious examples are increases in sales or payroll taxes, since they add to prices and costs. A rise of 1 percentage point in the sales tax rate shows up fairly directly in prices. Changes in payroll taxes have a similar effect by raising labor costs, which are then passed on in higher prices. The employer's share of social insurance contributions (including social security and unemployment insurance) has risen from only 2.7 percent of total employee compensation in 1950 to over 6.8 percent in 1977, and to over 7 percent in 1978, when higher unemployment insurance and social security taxes take effect.

The government may also add to prices through other forms of legislation or through regulation. A change in the minimum wage law is an example. Mandating an increase in the wage paid by the employer raises the cost of production and increases prices. Expenditures that are required to meet environmental and safety regulations add to costs. The environmental benefits or added safety may be well worth the resources devoted to them, but the rate of inflation is affected. Government regulations may also have an unfavorable effect on prices by restricting competition. When international competition is restricted through tariffs or quotas, domestic producers are able to raise their prices. Domestic competition is also restricted by various regulatory agencies that set uniform rates and hamper the entry of new firms. Some of these issues are discussed further in Chapter 5.

GROWTH AND INFLATION

In the traditional view, the cure for inflation is a dose of fiscal and monetary restraint designed to reduce aggregate demand and thereby eliminate the conditions generating the inflation. When inflation is being fed by excess demand—tight labor markets and intensive use of industrial capacity—elimination of that excess is indeed a prerequisite to controlling inflation and preventing it from accelerating further. Moreover, if the rate of increase in wages and prices responded readily to excess supply, a reduction in demand sufficient to produce a modest and short-lived amount of economic slack

would eliminate the inflation quickly. As we have seen, however, the essence of the present inflation problem is that the rate of wage and price increase reacts very slowly to idle resources and excess supply. Given this fact, an attempt to purge inflation from the system by sharp restrictions on demand would require a long period of very high unemployment and low utilization of capacity.

Most current estimates of the reaction of inflation to economic conditions indicate that a continuation of the current degree of slack (an unemployment rate near 6½ percent) would reduce inflation by amounts that at the upper end of the range are no more than one-half percentage point a year. In the absence of future inflationary shocks (for example, a rise in world materials prices), it would take at least 6 years of the current degree of economic slack to cut the inflation rate from 6 to 3 percent. To achieve the same results in less time would require even higher unemployment rates.

Not only would this policy entail a prolonged effort, it would also be extremely expensive in terms of lost output. Maintaining the current level of economic slack means producing approximately $100 billion a year less than the potential output of the economy.

To cut the current inflation rate in half, the lost output would amount to at least $600 billion (at 1977 prices). Moreover, to the extent that such a policy kept the rate of investment low, any attempt to restore high employment promptly, after the slack had disappeared, would probably soon encounter inflationary shortages of plant capacity.

USING THE TAX SYSTEM TO REDUCE THE MOMENTUM OF INFLATION

Various proposals have been offered in recent years to utilize changes in taxes to influence wage and price behavior directly. One set of proposals involves an attempt to break the momentum of the current inflation through one-time reductions in sales taxes or employer payroll taxes. Since the persistence of inflation during periods of economic slack stems partly from the sequence in which price increases induce wage increases that induce still further price increases, even a one-shot slowdown in the rate of price increase might halt the momentum and start unwinding the spiral.

The Federal Government has no general sales tax. It does have a series of specific excise taxes. Eliminating those on alcohol and tobacco hardly seems an appropriate measure to combat inflation, if only because the initial impact would be so unevenly distributed across the population. Most of the other excise taxes are earmarked for particular purposes, such as the highway and airport trust funds. The only sizable excise that remains, the tax on telephone service, is marked for elimination in fiscal 1979 under the President's proposed tax program.

State governments are the principal units that levy general sales taxes. Conceivably, the Federal Government could make grants to the States conditioned on their using the funds to reduce sales taxes. Serious prob-

lems of equity and administration must be solved before such an approach could be made to work. Five States have no sales tax. The taxable base varies widely among the States—some, for example, include food while others do not. Unless the grants were permanent, their cutoff could lead to a sudden return of sales tax rates to higher levels with the consequent addition to inflation. And even if the grants were continued indefinitely, the States could hardly be asked never to raise sales taxes once they had been lowered.

Payroll taxes are levied by the Federal Government, and the receipts flow into several trust funds to pay for various social insurance programs. That part of the taxes that is levied on employers is a direct addition to payroll costs and tends to be passed on in the form of higher prices.

Reducing employer payroll taxes would lead to a one-time reduction in costs and prices. The President has proposed, as a modest step in this direction, reducing the Federal portion of the unemployment insurance tax from 0.7 to 0.5 percent of covered payrolls. This reduction would lower tax liability by $800 million per year. But a cut large enough to produce a significant reduction in costs and prices would require a substantial change in national policy with respect to large-scale general revenue financing of the social insurance trust funds. While such a change in national policy might indeed be worth considering, it cannot be made without lengthy debate and appraisal encompassing far more than its merits as an anti-inflation tool.

One-time reductions in sales or payroll taxes to combat inflation need careful evaluation with respect not only to their administrative and related aspects, but also to their efficacy as anti-inflation measures. Roughly speaking, a $15- to $18-billion permanent reduction in sales taxes or payroll taxes would be needed to reduce the level of costs and prices by 1 percent. Would such a one-time reduction be enough to turn the momentum of inflation downward? That is, would the secondary effects—the effect of lower prices in slowing wage increases that in turn lead to still smaller price increases—be sufficient to affect the rate of inflation during subsequent periods? In part the answer would depend on what happened to expectations about future price and wage increases. No answer can be made with confidence, however, so long as we cannot quantify the strength of the various mechanisms that perpetuate inflation.

Another quite different set of proposals would use taxes as an incentive for workers and business firms to moderate wage and price increases. In one variant the government would levy a special tax upon wage increases in excess of some standard, and—in some versions—upon increases in price-cost margins of business firms. In another variant, instead of levying a tax increase, the government would offer a tax reduction to firms and groups of workers whose wage increases were held at or below the standard. Given the recent history of inflation, the chosen standard would not be expected to result in an immediate return to price stability, but would be sufficiently far below recent increases in wages to produce a significant decel-

eration in inflation. To continue the deceleration the tax (or subsidy) could be repeated, at least for a few years, with a lower standard each year.

Significant administrative problems are obviously entailed in any such proposal. How are wage rates (and fringe benefits) to be measured? What about multiyear union contracts, with low increases in the first year to avoid the tax or reap the subsidy, followed by large increases in the second year? Important economic questions also arise. Would a tax on the wage increases that are considered excessive simply be passed along by firms with substantial market power and strong unions and thus actually increase inflation? (The tax reduction variant would not suffer from this particular problem.) If carried on for a number of years, such measures could place a penalty on needed changes in relative wages and prices and could impede the restoration of equitable wage relationships for those who had been lagging in the adjustment to inflation. If imposed for only 1 year, they might not be sufficiently effective to break the momentum of inflation. And from the standpoint of labor and management, such measures might be viewed as giving the Internal Revenue Service some of the characteristics of a separate wage and price control agency.

It is not difficult to find administrative and equity problems and to raise unanswered questions about all these proposals. They are relatively novel and have not been fully evaluated or widely discussed. It would be imprudent to propose introducing any of them on a major scale before subjecting them to a much more complete evaluation and wider discussion with respect to their economic effectiveness, administrative feasibility, and social equity. On the other hand, the momentum of inflation is so strong, and the consequences of either allowing it to continue or trying to wring it out with excessively slow economic growth are so serious, that they should not be dismissed out of hand. Further economic evaluation and a much broader public debate would be very healthy, whatever its outcome.

A DECELERATION STRATEGY

While the forces at work in the economy are not likely to produce an acceleration of inflation in the next year or two, neither are they likely to lead to a deceleration. Supplies of labor and industrial capacity will be ample, but unemployment and excess capacity will be less than in the past 2 years, during which the underlying inflation rate did not diminish significantly. Bringing inflation down gradually in the next several years will clearly require a special effort.

If inflation is to decelerate, reliance cannot be placed on sharply lower price increases in one or two markets. The acceleration of inflation has been pervasive across all major sectors of the economy. Significant variations in rates of price increase have occurred among the various sectors—reflecting differences in productivity growth rates and underlying cost trends. But all

of the major components of the consumer price index have experienced a large rise in the rate of increase since the early 1960s.

Progress in moderating overall inflation must involve deceleration of wages and prices simultaneously. To bring this process about the President has asked business and labor to undertake voluntarily a program of price and wage deceleration.

This new program starts from the presumption that significant deceleration should be achieved in each market. Individual industries are asked to aim in 1978 at smaller price and wage increases than the average for the past 2 years. The amount of deceleration that can be achieved will vary from situation to situation, however, because individual industries face different circumstances. The accumulated experience of the recent past—high unemployment and sharp inflation—has distorted the structure of wages, prices, and profits compared to what they would have been in a period of price stability. Deceleration must be widespread, but allowances must be made for variations in the degree of moderation.

On the wage side, there has been a wide dispersion of wage rate increases in recent years. In those sectors of the economy characterized by large enterprises and union organizations, rates of increase in wages and private fringes typically have been in the range of 8 to 9 percent annually, with little change since 1975. On the other hand, the high level of unemployment has had a moderating influence on wage settlements in more fragmented labor markets composed of smaller firms, smaller unions, and unorganized labor. As a consequence, there has been a significant widening of wage rate differentials among groups in the labor force.

These wage differentials would under normal circumstances result in larger wage increases in the more competitive labor markets and a gradual narrowing of these wage differences. But such an outcome would imply a higher overall rate of wage inflation. Thus, an equitable effort to moderate the average rate of wage increase must be based on a greater degree of deceleration by those who have received the largest increases in recent years. There may be very special situations in which wage gains have lagged so far behind the rest of the economy that deceleration is not possible.

Some guidance in analyzing recent shifts in the wage structure can be obtained from an examination of historical trends in relative wages. But variations in the wage structure should be expected in response to evolving market conditions. Such changes in the structure will be associated with skill changes, locational shifts of firms, changes in productivity trends, and other factors that affect the competitive position of a specific industry. Deceleration in the rate of price inflation will contribute to moderation of the increase in employment costs directly through cost-of-living adjustments in wage contracts and indirectly through its effect on wage bargains. However, more than a passive response is needed to achieve significant deceleration of wage increases.

On the price side, there are similar reasons why a uniform degree of price deceleration is not feasible. Firms that previously had lowered their price-cost margins in response to slack demand must restore them to more normal levels as the economic recovery continues. But in those cases where profits have declined primarily in response to a low level of sales and capacity utilization, improvements in profits should come from higher volume rather than increased prices. The degree of price deceleration that is achievable in individual situations also will be affected by variations in raw material prices, by costs mandated by government—for example, changes in payroll taxes, minimum wages, or regulatory programs—and by the magnitude of cost increases incurred under labor and material contracts signed in prior years. Adherence to the goal of price deceleration can contribute to improved productivity by intensifying efforts to reduce costs.

If a program for deceleration of inflation is to succeed, it will require strong efforts and cooperation at the level of individual industries. Thus, early discussion between government and individual industry and labor groups with respect to specific inflation problems would be an important part of the deceleration effort. On the price side, the staff of the Council on Wage and Price Stability will undertake an analysis of the outlook for market conditions and cost trends in those specific situations where difficulties can be anticipated in achieving the deceleration objective over the course of the year. Members of the Administration will participate in informal private discussions with firms or industry groups based upon staff review of the price-cost outlook and major problems of the industry. The discussions would seek to identify problem areas in such matters as costs, capacity, productivity, regulatory measures, and government policies, and would examine specific actions the parties could take to help in the moderation of price and cost increases. Implicit criteria for selecting industries for such study and discussions would include their broad impact on costs, their potential for setting wage or price patterns, and the occurrence of other major developments affecting prices or costs.

Similar informal discussions with union leaders should occur well before the beginning of bargaining. They would focus on a review of past trends in relative wages, effects of the previous settlement, productivity, and other economic conditions. These discussions would provide an opportunity to emphasize the importance of deceleration and improvements in productivity, and to review potential barriers to achieving deceleration.

Developments with regard to food prices are likely to be helpful to the deceleration process. As noted in Chapter 2, the rise of food prices is likely to be considerably smaller in 1978 than it was in 1977. Also, if present indications of no change in world petroleum prices during 1978 are borne out, the prices paid by consumers for energy will continue to reflect a gradual adjustment of domestic prices to world levels. If a one-half percentage point annual deceleration could be achieved in the rate of price increase for

consumer prices excluding food and fuel, then the reduction in the inflation rate for the consumer price index as a whole would be larger if food and fuel prices move as expected.

Table 21 traces the history of changes in broad categories of the consumer price index, and in the major components of unit labor costs since 1960. The table shows separately the rate of increase in consumer prices for all items other than food and energy since short-run changes in the volatile farm component of the retail food basket and in energy prices are not an indication of longer-term trends.

TABLE 21.—*Annual rate of change in selected components of the consumer price index and employment costs, 1960–77*

[Percent]

Item	Relative importance, December 1977 (percent) [1]	1960 to 1965	1965 to 1970	1970 to 1975	1976	1977 [2]
Consumer prices						
All items	100.0	1.3	4.5	6.9	4.8	6.8
Food	24.0	1.5	3.7	9.4	.6	8.0
Energy	7.4	.4	2.5	10.9	6.9	7.2
All items less food and energy	68.6	1.4	5.0	5.7	6.1	6.4
Commodities	33.7	.8	3.7	5.1	5.3	4.7
Services	35.0	2.2	6.4	6.4	6.9	7.9
Private nonfarm business						
Compensation per hour	----	4.0	6.5	7.9	9.2	8.6
Contribution of:						
Wages and private fringes	----	3.8	6.0	7.1	8.5	8.1
Employment taxes	----	.2	.5	.8	.7	.5
Productivity	----	4.0	1.2	1.4	3.2	2.7
Unit labor costs	----	.0	5.2	6.4	5.8	5.7

[1] Detail may not add to total due to rounding.
[2] Preliminary.

Note.—Changes are measured from December to December for prices and from fourth quarter to fourth quarter for employment costs.

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

For all items except food and energy, the inflation rate was stable at just over 6 percent during 1976 and 1977. If an average deceleration of one-half a percentage point could be achieved in 1978 for this broad category of consumer prices, the decline in the rate of inflation for the CPI as a whole could be somewhat larger because of developments in food and energy prices. Food prices in 1978 should rise by significantly less than in 1977, more than offsetting a possible faster rise in energy prices. Excluding used cars, whose prices fell sharply in 1977, the degree of achievable deceleration for the consumer commodity group should be roughly similar to that of services. Actual rates of price increase would, of course, vary among major categories,

as they normally do. Prices of consumer commodities should rise by less than prices of services because of the larger productivity gains.

Since the degree of deceleration will not be the same in all cases, the achievement of one-half percentage point deceleration for the underlying rate of inflation will require that a larger deceleration occur in most situations. Unless that is done, the end result will be a deceleration substantially less than the one-half percentage point.

Determining the degree of deceleration in costs consistent with the assumed deceleration of prices requires consideration of what has happened to profit margins. Profit margins, adjusted for capacity utilization, are close to the postwar average. Without that adjustment, profits are below average. Cyclical deviations in productivity from the long-run trend—which are closely related to rates of capacity utilization—are typically reflected in variations in profits rather than in prices, actual unit labor costs rising relative to prices in recession and falling in recovery. On average, standard unit labor costs should decelerate at about the same rate as the underlying rate of inflation, since a greater deceleration of prices than costs would reduce profit margins below long-run average levels.

Payroll taxes for social security and unemployment insurance will increase sharply in 1978 and 1979. Achieving a one-half percentage point deceleration in unit labor costs will therefore require a larger moderation of increases in wages and private fringe benefits. At the same time, however, because of the larger than average deceleration in food prices, the rise in the overall consumer price index would slow down more than the underlying rate of inflation. As a consequence, significant gains in real wages and fringes would be achieved.

A focus upon the objective of decelerating inflation at the level of individual markets has several advantages. First, it is an explicit and easily understood standard for individual price and wage situations, set forth well in advance of any specific decision. It recognizes that basic rates of price increase must vary among markets because of differences in productivity growth and material cost trends. Yet virtually all should be able to achieve some deceleration. This objective does not interfere unduly with normal market functions. Individual firms continue to be responsible for their own cost increases rather than being subjected to some vague concept of cost pass-through. Finally, it provides a conceptual basis as a guide in identifying the specific sectors where efforts to reduce inflation should focus. For regulated industries and governmental operations, it would provide a framework for evaluating and coordinating a wide range of government policies that affect prices and costs. On the wage side, it recognizes that recent increases have varied substantially among different groups of workers, but it seeks to moderate distortions in the wage structure principally by different degrees of deceleration rather than by a speeding up of wage increases in lagging sectors.

Reduction of the ongoing rate of inflation during the expected economic slack in the next few years would do much to prolong the recovery. But we must also deal with another challenge—ensuring that we do not incur a new round of inflationary pressures as we return to high employment and capacity utilization.

In 1973, shortages of capacity, principally in materials-producing industries, contributed to the acceleration of inflation. At present, capacity relative to output is ample in virtually every industry; but as unemployment declines between now and 1981, output and employment will rise faster than trend. And since 1973 the labor force has grown more rapidly than the stock of fixed business capital. Will industrial capacity be sufficient to prevent shortages from setting off a new round of inflation as the economy approaches high employment?

The capacity shortages in 1973 developed at the end of a period in which industrial capacity had increased fairly rapidly. Between 1965 and 1973 the net real stock of fixed business capital excluding pollution abatement equipment grew at 4.4 percent per year. During the same period, the labor force (minus employment in the government sector) grew at a 1.9-percent annual rate. Even with this difference between the growth rates of labor and capital in the private sector, a number of industries experienced shortages in capacity in 1973. By contrast, in the 1973–76 period the annual growth rate of fixed capital stock, excluding that part devoted to pollution abatement, decreased substantially to 1.9 percent, while the private labor supply grew at 2.3 percent annually. This comparison of growth rates of labor and capital and the observed capacity shortages in 1973 are in themselves enough to arouse concern about capacity constraints in 1981 or even sooner.

The capacity shortages in 1973 were made more critical, however, by two factors that are not likely to recur in the next 4 years. First, output in virtually all industrial countries reached a peak simultaneously in 1973. This meant that substantial pressure was placed on world markets for many different industrial products and raw materials. Shortages in the United States could not be relieved by imports at existing or only slightly increased prices. Second, the price rise associated with the simultaneous surge in demand generated speculative building of inventories across a wide range of commodities both here and abroad. This inventory accumulation remained a profitable activity as long as prices rose faster than the sum of storage costs plus the nominal rate of interest. Economic growth is now below trend in all industrial countries. This slow growth and the worldwide persistence of excess capacity in most major industries make a recurrence of worldwide capacity problems unlikely. In steel, for example, the capacity utilization rate in 1973 was 97 percent in the United States, 92 percent in Japan, and 85 percent in Europe. Currently the average of these rates is less than 75 percent, and there is little chance that levels similar to those in 1973 will be

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reached by 1981, even under optimistic assumptions about the growth of demand in Europe and Japan. The availability of many basic commodities from foreign sources to supplement domestic output when it approaches capacity reduces the probability of price-raising shortages and speculative inventory accumulation.

PAST TRENDS IN THE UTILIZATION OF CAPITAL

Table 22 summarizes capacity utilization estimates prepared by the Federal Reserve Board for manufacturing and major industrial groupings. In general the current capacity utilization measures indicate sufficient industrial capacity to accommodate above-trend growth in output for at least 2 years.

TABLE 22.—*Capacity utilization in manufacturing and materials industries, selected periods, 1955–77*

[Percent; seasonally adjusted]

Period	Manufacturing			Industrial materials			
	Total	Advanced processing	Primary processing	Total	Durable materials	Nondurable materials	Energy materials
1955: I	84.5	82.4	88.3				
II	87.4	84.6	92.4				
III	87.5	84.3	93.4				
IV	88.6	85.6	93.9				
1966: I	91.1	91.0	91.8				
II	91.6	91.5	92.0				
III	91.2	91.0	91.9				
IV	90.6	90.9	90.1				
1969: I	87.2	86.3	88.9	89.4	87.9	91.0	91.1
II	86.5	85.4	88.4	89.6	87.7	91.2	92.4
III	86.4	85.2	88.6	90.4	89.4	90.7	92.2
IV	84.8	82.9	88.4	89.6	88.2	89.8	93.2
1973: I	87.1	84.5	91.8	92.1	90.6	93.9	93.8
II	87.6	85.2	92.1	92.5	91.6	93.6	93.4
III	87.8	85.0	92.7	92.9	92.3	93.4	94.1
IV	87.7	85.0	93.0	92.1	91.4	93.7	92.0
1976: I	79.1	78.0	81.0	79.3	73.8	85.6	85.6
II	80.3	79.1	82.5	80.7	76.7	86.0	84.1
III	80.8	79.5	83.1	81.2	78.4	84.8	83.8
IV	80.6	79.7	82.2	80.3	76.5	84.4	84.8
1977: I	81.2	80.5	82.3	80.4	76.5	85.1	84.5
II	82.7	81.4	85.1	82.6	79.4	87.2	84.8
III	83.0	81.9	84.9	82.3	79.2	86.3	85.0
IV	82.8	81.8	84.8	82.3	79.6	86.3	(1)

[1] Not available.

Source: Board of Governors of the Federal Reserve System.

Capacity utilization for all manufacturing industries was 82.8 percent in the fourth quarter of 1977, 5 percentage points below the level attained in 1973 and nearly 9 percentage points below the 1966 peak. Capacity utilization in materials, a category that contains mining and utilities as well as unfinished manufacturers, was almost 11 percentage points below its previous peak in 1973.

The interpretation of capacity utilization statistics is complicated, however, by a number of factors. First, no measure of the utilization of capital covers the entire economy. The broadest-based measure obtainable is for the

manufacturing sector, which in 1977 accounted for only about 25 percent of private GNP and 20 percent of the fixed private nonresidential capital stock. While it is reasonable to assume that capacity utilization outside of manufacturing is strongly correlated with the manufacturing capacity utilization rate, substantial variation between disaggregated measures of capacity utilization does exist. For example, between 1962 and 1966 capacity utilization rose more rapidly than might have been expected because the share of manufacturing output in the total increased. Between 1966 and 1968 the manufacturing share fell and capacity utilization declined, even though GNP remained high relative to potential. Only tentative conclusions about the adequacy of aggregate capital formation can be reached from relatively narrow measures of capacity utilization.

In industries except those with continuous processes (like chemicals, paper, and steel), the possibility of adding a second or third shift to increase output without adding to the physical capital stock creates additional ambiguity. In many sectors of the economy, particularly ones producing finished goods, production is relatively labor-intensive; in a given plant, output can be increased by adding employment with very little deterioration in productivity. In these sectors, measured capacity utilization may rise very slowly in relation to output when output is high.

Advanced-processing Versus Materials-producing Industries

The data in Table 22 show a sharp difference between the advanced-processing industries and the primary-processing and materials industries. During the fourth quarter of 1977 capacity utilization rates in advanced-processing industries were only 3 percentage points below those reached in 1973. But in 1973 capacity shortages were not apparent in such industries, nor did price pressures originate in those areas; indeed, utilization rates were substantially lower, by about 6 percentage points, than they had been in 1966. Capacity utilization in primary-processing and materials industries, however, which was quite high in 1973, was well below those levels in late 1977, by about 8 points for primary-processing industries and 11 points for materials. Many of these industries created additional capacity in response to the high utilization rates of 1973. The 4½-point difference in capacity utilization for manufacturing as a whole between 1973 and late 1977 thus understates the extent that capacity is available to accommodate above-trend gains in output in the next several years without generating inflationary shortages. Most advanced-processing industries should be able to add extra shifts to expand capacity without extraordinary price increases.

Labor Utilization Versus Capital Utilization

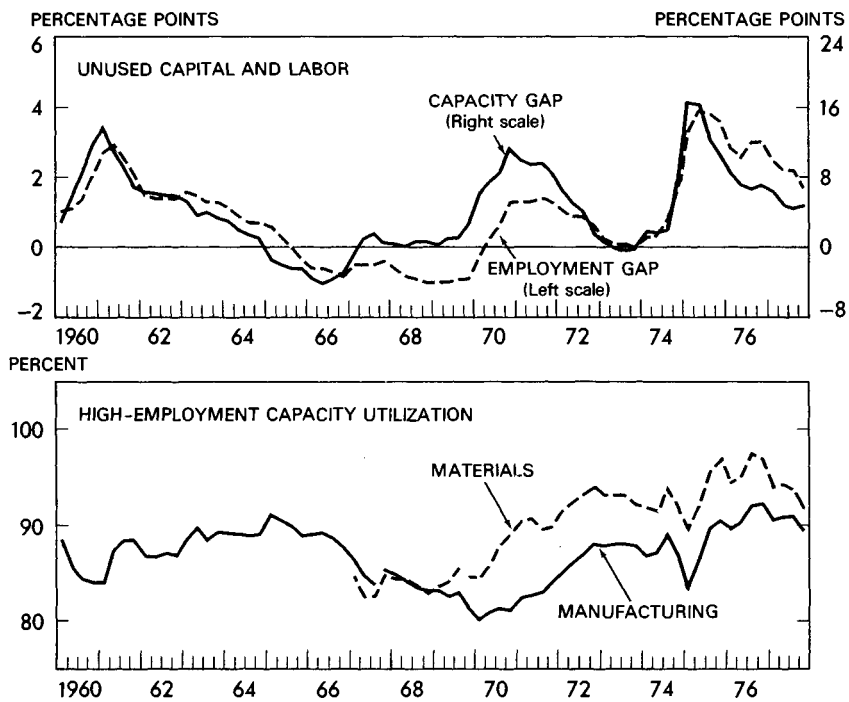
While the growth in domestic output now in prospect for 1978 and 1979 and projections of excess capacity in other industrial nations make widespread capacity bottlenecks unlikely in the next 2 years, a longer-run imbalance between capital and labor resources remains a question. The relation

of unused labor services to unused capital services is illustrated in Chart 11. The capacity gap is the difference between the Federal Reserve Board capacity utilization index and 87.5 percent, the level attained at times when the unemployment rate was close to high employment. The employment gap is the difference between the overall unemployment rate and the high-employment benchmark. During the 1960s very large investment expenditures increased the capital stock substantially. As a consequence, in 1967–69, when the labor market became very tight, with a negative employment gap, the capacity utilization rate remained at or below 87 percent. Since then, however, the employment gap has drifted upward relative to the capacity gap; for any given unemployment rate the observed capacity utilization rate has increased.

A related measure of this capital-labor imbalance is the high-employment capacity utilization rate shown in Chart 11. By estimating the average relation between changes in the unemployment rate and changes in the capacity utilization rate, one can obtain the capacity utilization that would be achieved in any period if unemployment were at its high-employment

Chart 11

Relationship Between Capital and Labor Utilization



SOURCE: COUNCIL OF ECONOMIC ADVISERS.

benchmark. The concept of high-employment capacity utilization is an attempt to provide a cyclically adjusted measure of the balance between capital and labor resources. As Chart 11 indicates, high-employment capacity utilization for manufacturing, currently at 90 percent, is significantly higher than it has been in the past; the postwar average is 86 percent.

For materials, data prior to 1967 are not available. The high-employment capacity utilization rate did move up between then and 1973. After some fluctuations, the rate in the fourth quarter of 1977 was at about the 1973 level. In general, the rise in the high-employment capacity utilization rate suggests that there could be pressures on capacity as the economy returns to high employment if business fixed investment does not increase substantially.

The estimates in Chart 11 also provide some comfort. In the early 1960s the high-employment capacity utilization rate was also high. The prior period of slack demand and underutilized resources had resulted in poor investment performance and the slowing of growth in the capital stock relative to the labor force. But the subsequent period of high investment did succeed in increasing the availability of capacity, so that by the second half of the decade the high-employment capacity utilization rate had fallen significantly.

CAPACITY UTILIZATION THROUGH 1981

The fact that measures of existing capacity utilization cover only part of the capital stock, and the conceptual problems noted earlier, mean that only tentative conclusions about the adequacy of the capital stock can be drawn from available utilization statistics. A rough indication of the rise in manufacturing capacity utilization that may accompany the projected real GNP growth of 4.8 percent per year between 1977 and 1981 can be obtained by observing the capacity utilization growth experienced in 1962–68, when real output grew steadily at above-trend rates, and real investment grew more rapidly than real output. If the relation between real GNP growth and capacity utilization in 1962–68 is matched in 1977–81, an annual 4.8 percent growth in real GNP would raise the manufacturing capacity utilization rate by 1.5 percentage points a year. By 1981 the utilization rate would reach 89 percent, slightly above 1973 but less than the 1966 level. In view of the current capacity utilization differences among industries and particularly the current large unused capacity in materials industries, such an outcome should be consistent with the avoidance of inflation stemming from capacity shortages. If, on the other hand, investment and capacity growth proceed at a significantly lower rate, capacity utilization would rise to levels previously associated with inflation.

THE LABOR MARKET

Monetary and fiscal policies can provide the conditions under which economic growth proceeds fast enough to reduce the overall unemployment

rate. Such policies alone, however, cannot reduce unemployment to acceptable levels without a significant risk of accelerating inflation.

The incidence of unemployment differs widely throughout the population. In both good and bad times, youth, minorities, women, and those with less education face a much greater likelihood of being unemployed than white male adults with good education. As a consequence, when the overall unemployment rate declines to low levels, unemployment among the more favored groups becomes very small, labor shortages occur, and the rate of wage and price increase accelerates. Yet less favored groups continue to suffer high though diminished unemployment.

The uneven incidence of unemployment requires that monetary and fiscal policies to deal with aggregate unemployment be accompanied by structural policies to deal directly with the labor market problems of groups with persistently high unemployment.

THE STRUCTURE OF UNEMPLOYMENT

Although unemployment rates have recovered to a great extent from the 1975 recession, they have not yet reached the levels normally associated with high employment. As is seen in Table 23, all of the unemployment rates by age, race, and sex were higher in 1977 than in 1956, 1965, and 1973—years of low overall unemployment in which labor markets were apparently close to balance. It would thus be wrong to conclude that all of the current high rate of unemployment is frictional or structural (i.e., that the present unemployment rate could not be lowered through an increase in aggregate demand without increasing the rate of inflation). There are, however, a number of structural problems revealed in Table 23, and it is useful to examine each of them in detail.

Unemployment differentials have been persistently observed in our economy. They exist between blacks and whites, teenagers and adults, and women and men. Part of the explanation of such differentials has to do with different patterns of turnover, skill level, labor market attachment,

TABLE 23.—*Unemployment rates by race, sex, and age, selected periods, 1956–77*

[Percent [1]]

Group	1956 [2]	1965 [2]	1968	1973 III	1975 II	1977 IV
Total	4.2	4.6	3.6	4.8	8.9	6.6
White:						
Males 20 years and over	2.7	2.6	2.0	2.8	6.5	4.2
Females 20 years and over	3.9	4.2	3.4	4.4	8.0	6.0
Teenagers	9.1	12.3	11.0	12.2	18.3	14.1
Black and other: [3]						
Males 20 years and over	6.7	5.4	3.9	6.0	12.0	10.1
Females 20 years and over	9.4	9.0	6.3	8.1	11.8	11.8
Teenagers	16.6	24.6	25.0	31.5	36.7	38.3

[1] Percent of civilian labor force in group specified; quarterly data seasonally adjusted.
[2] Data adjusted for change in definitions in 1967.
[3] Blacks comprise about 89 percent of total black and other in the labor force.

Source: Department of Labor, Bureau of Labor Statistics.

location, and other factors that may be quantified. Differentials may also be due to factors, such as discrimination, that are less quantifiable but also important in understanding the structure of unemployment.

Youth Unemployment

Teenagers comprised only 10 percent of the labor force in the fourth quarter of 1977, but they accounted for 24 percent of all unemployment. This problem is better understood by examining two separate questions: Why is teenage unemployment different from adult unemployment? And why is black teenage unemployment much higher than white teenage unemployment?

White teenagers, like other groups, still suffer from cyclical unemployment, but there is less structural unemployment than would appear simply from a comparison of white teenage unemployment rates with those of white adults. During periods of general economic prosperity much of the unemployment of white teenagers results from decisions to leave and reenter the labor force. For most younger teenagers—those 16 to 17 years old—employment is a secondary (or tertiary) activity, and jobs are considered only as temporary. For older teenagers there also is much turnover in the trial and error process of finding a long-term career job. A recent study has shown that between 1967 and 1973 the average number of teenagers who left employment and withdrew from the labor force in any given month ranged for different race-sex groups from 12 to 20 percent of total teenage employment. The corresponding figure for males aged 25 to 59 was 0.4 to 1.1 percent.

The higher labor force turnover rates for teenagers are shown in Table 24, where unemployment rates of teenagers and adult males and females are classified according to the reason for unemployment. The proportion of the total teenage labor force that is unemployed because they lost their last job is not much higher than for adults, but the fraction unemployed as a result of either leaving their last job or entering or reentering the labor force is a great deal higher than for adults. The data in Table 24 may to some extent understate the relative importance of unemployment among adult females and teenagers associated with job loss. Some of those in the reentrant category may have been discouraged workers who previously dropped out of the labor force after losing their last job.

TABLE 24.—*Unemployment rates by reasons for unemployment, 1977*

[Percent]

Group	Total [1]	Males 20 years and over [2]	Females 20 years and over [2]	Teenagers [2]
Total	7.0	5.2	7.0	17.7
Job losers	3.2	3.4	2.8	3.4
Job leavers	.9	.6	1.2	1.7
New entrants to the labor force	1.0	.2	.4	7.6
Reentrants	2.0	1.0	2.6	5.1

[1] Percent of civilian labor force.
[2] Percent of civilian labor force in sex/age group specified.
Source: Department of Labor, Bureau of Labor Statistics.

If labor markets were tighter, as in the late 1960s and 1973, the duration of job search, and therefore the unemployment rate of teenagers, would fall. The instability of the teenage labor force, however, would prevent the rate from falling to a level comparable to that of adults. Thus, the white teenage unemployment rate was 12.2 percent during the 1973 boom and averaged 11.0 percent in the midst of the Vietnam war boom of 1966–69.

This is not to say that such search is a necessary characteristic of the teenage labor market. Improved labor market information and job counseling programs for teenagers might reduce search time as well as job turnover. The evidence does not rule out the existence of some structural unemployment among white teenagers. But a large part of the differential between white teenagers and adults clearly reflects a high rate of voluntary job mobility prior to settling on a stable career.

The differential between unemployment rates of black and white teenagers cannot, however, be explained by turnover behavior. The proportion of black teenagers who quit jobs and leave the labor force is only slightly higher than for whites. Instead, the evidence suggests that black teenagers (as well as black adults of both sexes) have a much more difficult time finding jobs than their white counterparts do. Moreover, this relative difficulty in finding employment has apparently increased during the past 4 years.

Large numbers of black teenagers are very likely not to be in the labor force because they were unable to find jobs within a reasonable period of time. As evidence of that fact, the civilian labor force participation rate of black teenagers (the "black" category refers throughout this chapter to the "black and other" grouping in Bureau of Labor Statistics data) was only 40.8 percent in the fourth quarter of 1977, compared with 60.0 percent for white teenagers. A "discouraged worker" effect may explain a large part of this difference. Black teenagers have slightly higher school attendance rates than white teenagers, a fact that would tend to reduce their labor force participation rate, while the much lower average family income for blacks than for whites should increase participation rates among black youth. If these two factors balance each other, then the percentage of black teenagers who are actually available for work would equal that of white teenagers, and the true rate of black teenage unemployment might approach 57 percent instead of the reported 38 percent. This would represent an additional 500,000 unemployed persons, or an increase in the overall unemployment rate of 0.5 percentage point.

An alternative index of the economy's success in providing jobs for teenagers is the ratio of employment to the teenage population. At the peak of the 1973 boom the employment-population ratio was 49.0 percent for white teenagers and 28.2 percent for black teenagers. These ratios fell to 46.2 and 25.1 percent, respectively, in the trough of the 1975 recession. From 1975 to the fourth quarter of 1977 the employment-population ratio for white teenagers increased to 51.5 percent, but for black teenagers it continued to fall

in 1976 and did not increase until 1977, returning to 25.1 percent in the fourth quarter. Thus, by this measure white teenagers are doing better than at the peak of the last business cycle, but black teenagers are doing no better than before the current upswing began.

The gaps between black and white teenage unemployment rates and employment-population ratios have been increasing steadily for the past 30 years. Even in 1968, at the height of the boom induced by the Vietnam war, the black teenage unemployment rate was 25 percent, compared with 11 percent for whites. This worsening coincides with what was until 1975 a general improvement in adult black unemployment rates relative to those of whites—especially for males—as well as a general increase in the relative incomes and skill levels of adult blacks.

Several plausible explanations of why black youth have fared so badly in the labor market during the current upswing have been advanced by economists. A popular hypothesis is that blacks reside in central cities in proportionately greater numbers than whites and that central cities have not shared in the recovery. This, however, cannot explain very much of the failure of the employment-population ratio of black teenagers to increase during the recovery. From 1975 to 1977 the proportion of black teenagers living in central cities held constant at 55 percent; for whites the proportion fell from 23 to 22 percent. The employment-population ratio of black teenagers residing in central cities fell by 0.9 percentage point, but for white teenagers in central cities it increased by 3.0 points. Moreover, whereas the employment-population ratio of white teenagers residing in suburbs increased by 3.8 percentage points, the ratio for black teenagers in suburbs fell by 0.8 point. In nonmetropolitan areas the white teenage employment-population ratio rose by 3.9 percentage points while the ratio for blacks decreased 1.5 points. Thus, the worsening situation for black teenagers does not appear to be urban-specific. The black unemployment problem is an urban problem, but principally because so many blacks live in cities.

Another explanation of why the black teenage labor market has been deteriorating both relatively and absolutely is the large increase in the potential labor force of black teenage labor relative to other kinds of labor. From 1964 to 1976 the black teenage population grew at an annual rate of 4.3 percent compared with 2.3 percent for white teenagers and 1.7 percent for all adults. To the extent that the wages of teenagers relative to those of adults are fixed through institutional arrangements such as legal minimum wages, collective bargaining agreements, custom, or a tailoring of jobs to a particular mix of worker skills and characteristics, an increase in the relative supply of teenagers will lead to an increase in their relative unemployment. Black teenagers would be especially affected because black adults have generally been attached to low-paying, low-skill occupations in which they are more likely to compete with teenagers than is the case with white adults. This explanation also rests on the proposition that the labor markets for

black and white youth are to a large extent separated, perhaps because of a geographical separation within particular areas or because of labor market discrimination against black youth.

The recent worsening of the black teenage labor market, both absolutely and relative to the labor market situation of white teenagers, is consistent with this explanation. From 1972 to 1976 the annual rate of growth of the white teenage population was 1.3 percent, while the black teenage population grew at the rate of 3.2 percent annually. The combination of a slow growth in demand and a rapid growth of supply caused a rise in the unemployment rate and a decline in the employment-population ratio.

Some economists suggest that the black teenage unemployment rate is high because the unemployed are reluctant to accept available jobs at the relevant prevailing wage levels. According to this view, a large increase in the number of teenage jobs at approximately the minimum wage in black communities would have little impact on either employment or unemployment among black teenagers. There is no evidence to warrant acceptance of this hypothesis.

We can identify some of the reasons for the high and worsening unemployment rates for black youth, but we know these reasons do not constitute a full explanation. It is clear, however, that most of the differential unemployment between black and white youth does not reflect different search and turnover patterns. It is a major structural problem.

Unemployment of Women

One of the more positive facts about the performance of the labor market is that it continues to accommodate the rapid increase in the female labor force that has occurred over the past two decades. In 1956, women comprised 31.5 percent of the adult labor force and 31.3 percent of adult employment, but by the third quarter of 1973 these percentages had risen to 38.4 and 37.9, respectively. From the third quarter of 1973 (the peak of the previous cycle) to the fourth quarter of 1977, employment of adult women increased by 15 percent compared with a 5-percent increase for men.

While more women have entered the labor force, unemployment differentials between men and women persist. One reason for the sex differential in unemployment rates is that married women with children, a significant part of the female labor force, have historically been less attached than men to a career outside the home. (Single women's labor market behavior and attachment are not markedly different from the record for single men.) Whether their children are old or young, mothers whose husbands are present tend to have much lower participation rates than those without husbands present. But attachment to the labor force is not the sole explanation for the sex differential in unemployment rates. Inflexibility in labor market arrangements, that is, the relative scarcity of part-time work, may also be a factor. So may skill differentials between men and women. Finally,

the "statistical discrimination" that once associated women with secondary labor market habits, while possibly a factor, is no longer as important as it once was.

From 1967 to 1973 the proportion of women aged 25 to 59 who left the labor force from a job averaged between 4.3 and 4.8 percent per month. This is much less than the corresponding figures for teenagers, mentioned above, but much higher than the labor force turnover rates for men, 0.4 to 1.1 percent. In 1977, as shown in Table 24, of the 7.0 percent of adult women in the civilian labor force who were unemployed, three-fifths were unemployed because they had either left their jobs or were entering the labor force; only a third of the adult male unemployed were in the same category. Subject to the qualification made earlier about the nature of unemployment among reentrants, the difference in turnover appears to account for most of the difference in total unemployment rates between the sexes.

Part of the reason why women are less attached to the labor market than men is that husbands commonly have been regarded as the "principal" earners in husband-wife families, and wives as the "secondary" earners. In 1977, 21 percent of all unemployed persons were wives with husbands present, and 79 percent of these were in family units where at least one person was employed full time. For unemployed husbands the figure was only 37 percent. The proportion of unemployed wives in families with at least one full-time earner was 81 percent for whites, compared with 73 percent for blacks. The burden of a given level of unemployment is thus greater for black than for white women. The unemployment burden is also made heavier for black females than for whites because black women have historically had significantly higher labor force participation rates than white women. (The gap has been narrowed somewhat since the late 1960s with the rise in white women's participation.) Despite this stronger attachment to the labor force, black women experience unemployment rates that are over one and one-half times those of white women.

In general, a significant part of the unemployment differential between adult women and men is explained by high labor force turnover, as is the case for teenagers. Institutions seem to be changing, however, in a manner that should reduce this differential in the future. The large increase in the labor force participation rates of younger married women implies that women will have a greater average degree of labor force attachment in the future, and this should lower their unemployment rate over time as their turnover rate decreases.

Unemployment of Adult Males

The unemployment rate of adult black men has clearly not recovered from the 1975 recession as much as would be expected. Between 1954 and 1973 their unemployment rate, when adjusted for definitional changes, averaged 7.2 percent, compared with 3.3 percent for adult white males, a ratio of 2.2 to 1. After adjustment for cyclical factors (the black rate is more

cyclically sensitive than the white rate), this ratio declined steadily over time, by approximately 0.4 percentage point from 1954 to 1973. In the fourth quarter of 1977, however, the black-white adult male unemployment ratio was 2.4 instead of the 1.8 that would be predicted on the basis of trend and cycle. Had this earlier trend continued, the adult black male unemployment rate would have been 7.6 percent in the fourth quarter of 1977 instead of its actual value of 10.1 percent. Not only did the unemployment rate of adult black males increase sharply over the past 4 years, but also their civilian labor force participation rate fell by 2.8 percentage points, compared with a drop of only 1.3 points for white males. This drop itself may have been caused by the increase in relative unemployment rates for black males.

It is possible that part of the cause of the high unemployment rates of adult blacks is related to the black youth unemployment problem. The fact that black youth face such enormous difficulties in obtaining steady employment may establish a pattern that is difficult to break. Table 25

TABLE 25.—*Unemployment rates of black and white men by age, 1977*

[Percent [1]]

Age	Black and other men	White men
18–19 years	38.0	13.0
20–21 years	32.8	10.7
22–24 years	18.9	8.3
25–34 years	11.7	5.0
35–44 years	6.3	3.1
45–54 years	5.1	3.0
55–64 years	5.9	3.3
65 years and over	7.9	4.9

[1] Percent of civilian labor force in group specified.

Source: Department of Labor, Bureau of Labor Statistics.

shows the pattern of average unemployment for black and white men by age in 1977. The extremely large differential in unemployment rates between blacks and whites in the 18 to 24 age range implies that whites are able to find secure jobs much more easily than blacks. As they get older, black males are more likely than whites to be in jobs that are subject to termination.

UNEMPLOYMENT AND INFLATION

How well we deal with structural aspects of unemployment has important implications for the equity with which the benefits of prosperity are distributed. In addition, it will play an important part in determining how far we can go in reducing unemployment without risking a new episode of inflation. Large increases in aggregate demand and production cause a rise in the demand for labor. Initially the resultant job vacancies are filled from the ranks of the unemployed. But as unemployment falls below some point the number of job vacancies begins to exceed the number of qualified job seekers. Firms increasingly try to meet their labor force needs by large

wage increases, a process that causes the overall rate of wage advance to rise and thus leads to a rise in the rate of inflation.

The precise details of this process are not fully understood, partly because it does not always work the same way. For example, the responsiveness of wages to changes in the degree of labor market tightness depends upon how long the inflationary process has been under way, and how expectations about future inflation have been affected. There is considerable controversy about how important unions are in initiating and perpetuating wage increases. Some evidence suggests that in the early stages of a new inflationary process union wage increases lag those in the nonunion sector. Despite our ignorance about many specific parts of the process, there is no question but that low unemployment rates imply a high degree of labor market tightness and that this eventually results in a strong upward pressure on wages and prices.

From the point of view of dealing with the relationship between inflation and unemployment there are two major questions:

1. What is the overall rate of unemployment at which wage increases accelerate?
2. Is this level changing over time?

These questions are difficult because there are several "submarkets" for labor rather than a single market. Job seekers in one market are only partly competitive for vacancies in another. The boundaries of these individual markets are determined by a number of factors: geographic, demographic, occupational, and those arising from discrimination. If some groups have very high unemployment rates but cannot be drawn upon to fill certain jobs, wage pressures and inflationary problems can begin to arise even when there is high unemployment.

Three alternative measures of labor market tightness for selected years from 1956 to 1957 are shown in Table 26 and illustrate the major issues associated with these questions.

The overall rate of unemployment receives the most public attention because it is often interpreted as a major index of the economy's performance. The problem with its use as an index of labor market tightness is that during the past 20 years the composition of the labor force has shifted toward those demographic groups that experience the highest labor force turnover and unemployment. For example, because of the turnover behavior discussed above, a 10- to 12-percent rate of unemployment among teenagers may be roughly equivalent, in terms of labor market tightness, to a 3-percent rate for adult males. Thus, if the share of young persons in the labor force increased, the overall unemployment rate associated with a given degree of labor market tightness would also increase. In fact, from 1956 to 1977, the proportion of the civilian labor force under age 25 did increase from 15 to 24 percent. This implies that the overall rate of unemployment corresponding to any degree of labor market tightness is higher now than it was two decades ago.

TABLE 26.—*Alternative unemployment rates, selected years, 1956–77*

Period	Overall rate	Fixed-weight rate	Prime-age male rate	Overall less fixed-weight	Overall less prime-age male
	Percent [1]			Percentage points	
1956 [2]	4.0	4.0	2.6	0.0	1.4
1965 [2]	4.4	4.1	2.3	.3	2.1
1968	3.6	3.3	1.7	.3	1.9
1970	4.9	4.4	2.8	.5	2.1
1971	5.9	5.2	3.5	.7	2.4
1972	5.6	4.8	3.1	.8	2.5
1973	4.9	4.1	2.5	.8	2.4
1974	5.6	4.8	3.1	.8	2.5
1975	8.5	7.4	5.7	1.1	2.8
1976	7.7	6.7	4.9	1.0	2.8
1977: Fourth quarter [3]	6.6	5.8	3.9	.8	2.7

[1] Percent of civilian labor force.
[2] Data adjusted for change in definitions in 1967.
[3] Seasonally adjusted.

Source: Department of Labor, Bureau of Labor Statistics.

One way to adjust the overall unemployment rate for changes in the demographic composition of the labor force is to use the same set of weights for each group over time. This is reported in Table 26 as the fixed-weight unemployment rate, for which it is assumed that the composition of the labor force with respect to seven demographic groups (teenagers, and males and females aged 20–24, 25–54, and 55+) remained identical to the composition in 1956. Because of the long-term increase in the relative number of young persons and adult women in the labor force, the fixed-weight unemployment rate has fallen relative to the overall rate. Thus, if in the fourth quarter of 1977 the composition of the labor force were the same as it was in 1956, and each group had its unemployment rate of the fourth quarter of 1977, the overall unemployment rate would have been 5.8 rather than 6.6 percent.

Adjusting the unemployment rate for changes in the demographic composition of the labor force implies that the value of the overall unemployment rate at which wage changes tend to accelerate has increased by 1 percentage point during the past two decades. On the other hand, the shift in the demographic composition of the labor force toward high unemployment groups has slowed and is expected to turn in the other direction in the mid-1980s.

Another way to adjust the overall unemployment rate is based on the hypothesis that the wage rates of some demographic groups are relatively insensitive to their own unemployment rates. According to this view in its most extreme form, unemployment rates of experienced workers with a history of continuous labor market attachment are likely to offer the best explanation of the rates of change of all wage rates. For example, because of union bargaining or for reasons of equity, firms might adjust wage rates by a uniform percentage for all skill levels even though some of these are in excess

supply. Another source of relative wage rigidity is legal minimum wages. Because the high-skill, short-supply jobs in the economy have historically been held by men between the ages of 25 and 54, the (so-called) prime-age male unemployment rate has often been used as an index of labor market tightness. As seen in Table 26, however, the prime-age male rate is closely correlated with the fixed-weight rate with respect to cyclical changes, so it is next to impossible to discern which is the better index of short-run changes in labor market tightness through aggregate analysis.

Quantifying the inflationary effect of changes in the unemployment rates of various demographic groups is nevertheless extremely important for policy purposes. If prime-age males were the only group that mattered in determining wage inflation, programs could be directed toward increasing the employment of other groups without any inflationary consequences. Recent research, however, has shown that over long periods of time the relative wages of different demographic groups have moved in the direction that would be expected on the basis of changes in relative supplies. This finding implies that the unemployment of groups other than prime-age males does contribute to overall wage changes, but it does not tell us much about the magnitude of the relationship.

While the prime-age male unemployment rate is closely correlated with the fixed-weight measure for short-run cyclical movements, it has behaved differently over the past two decades taken as a whole. Since 1956 it has fallen by almost 1½ percentage points relative to the overall unemployment rate, while the fixed-weight index has fallen by only about 1 percentage point (Table 26). Use of the prime-age male rate as an index of labor market tightness therefore implies that the overall unemployment rate at which inflation is likely to accelerate has risen by 1½ percentage points rather than 1 percentage point over the past 20 years.

The unemployment rates of some or all demographic groups associated with any given degree of labor market tightness may have increased to some extent because of the growth of income transfer programs. In particular, many economists have argued that the more liberal provision of unemployment insurance, food stamps, and other such programs, while achieving the desirable end of mitigating the hardship of unemployment, may also have allowed people to search more carefully for the jobs they will accept. This would cause vacancies to rise relative to the number of unemployed persons, causing greater inflationary pressures at a given rate of overall unemployment. The evidence on the quantitative importance of these programs is mixed and controversial. But the direction of their effect on the unemployment rate at which inflationary pressures emerge is clear.

A number of forces have been at work over the past several decades to raise the overall unemployment rate at which inflationary pressures begin to appear above the neighborhood of 4 percent that seemed to prevail during the mid-1950s. Because of the complexity of the problem, there are no precise answers to the question of where the zone now lies. Demo-

graphic changes that reduce the proportion of teenagers in the labor force should begin lowering the inflationary threshold during the early 1980s. For institutional reasons, the speed with which inflationary problems develop as the threshold is crossed is relatively sluggish. Nevertheless, it is clear that achievement of the Administration's long-run goals for unemployment in 1981 and later years cannot rely solely upon monetary and fiscal policies. These policies, which affect aggregate demand, will have to be supplemented by effective employment and training policies targeted to reduce structural unemployment if socially desirable levels of overall unemployment rates are to be reached without the appearance of inflationary pressures in the labor market.

Measures that are successful in improving the operation of the labor market can reduce the overall unemployment rate at which inflationary pressures arise. The general object of such policies should be to provide a better matching of the unemployed with available job vacancies. In principle, this can be accomplished by three major types of actions: training; finding jobs for groups with very high unemployment; and improving information and career choices for new entrants into the labor force.

POLICIES TO REDUCE STRUCTURAL UNEMPLOYMENT

Reaching a low rate of unemployment without initiating increases in the rate of inflation will require effective structural programs as well as overall monetary and fiscal policy. Programs that increase access to jobs for groups with high unemployment not only serve the interests of economic justice, but help us avoid the excessively tight labor markets and inflationary pressures that might otherwise arise in a period of high unemployment.

Policies designed to alleviate structural unemployment include the following: (1) Manpower training; (2) public service employment (PSE); (3) labor market information; (4) incentives for private industry to hire the disadvantaged; and (5) elimination of restrictive practices in the labor market. The primary focus of labor market policy in the United States over the past several years has been on the first two. We also spend about $700 million per year on the U.S. Employment Service, an example of the third approach, and we have made some limited attempts to institute policies of the fourth kind. Equal employment opportunity programs, which are currently in the process of being strengthened and improved, are an example of the fifth policy.

Since the achievement of our long-term economic objectives depends partly on the success of these structural policies, it is useful to review the major Federal programs that are in operation, the changes that have recently been made in them, and the effect that these policies are likely to have.

Manpower Training Programs

A wide range of programs designed to increase the labor market skills of persons who have chronic difficulties in finding or holding jobs has been

offered since the early 1960s. During 1978 approximately $1.9 billion will be spent on classroom and on-the-job training programs (Table 27). To the extent that training programs can raise the skills of the unemployed so that they correspond more closely to those needed in vacant jobs they should lower the unemployment rate at which excessive labor market tightness begins to appear. Since the benefits of these programs accrue for some time after the training period, it is difficult to find out whether they are having their intended impact until the work experience and earnings of trainees have been observed for many years. Scattered evidence based on the programs of the 1960s, however, suggests that the return on classroom training programs is approximately comparable to returns on other types of investment in our economy. Moreover, the training programs do appear to be moderately well targeted to the least skilled participants in the labor force.

TABLE 27.—*Estimated Federal outlays and participation in training and employment programs during fiscal year 1978*

Program	Outlays (millions of dollars)	Person-years (thousands)
Total training and employment	10,317.0	1,865.3
Training	1,890.7	487.8
Institutional	1,345.7	350.2
On-the-job	545.0	137.6
Public service employment (PSE)	8,426.3	1,377.5
Regular PSE	5,809.1	681.4
Work experience (principally youth)	1,794.9	403.5
Summer youth	672.0	255.0
Older Americans	150.3	37.6

Source: Office of Management and Budget.

The extent to which these programs do in fact improve the inflation-unemployment tradeoff is not known. The observed increases in the earnings of participants in these programs arise from a combination of reduced unemployment and increased productivity, but the evidence necessary to determine the importance of each factor is lacking. Under the assumption that half of the benefits to training come in the form of increased employment and the other half from increased productivity, an additional $1 billion spent each year on training would, ignoring population growth, lower the unemployment rate, for a given degree of labor market tightness, by about 0.05 percentage point after 5 years and slightly more thereafter. Accordingly, the scale of training programs would need to be many times greater than it now is before it would have a significant impact on the unemployment rate. Moreover, it is likely that the average effectiveness of these programs in terms of reducing unemployment would decline as they were expanded to reach a much wider portion of the population.

Training programs are a good investment, but on the basis of present evidence their potential role is modest in relation to the total unemployment problem.

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Public Service Employment

Since 1971 the principal emphasis of manpower policy has shifted from training toward the direct provision of federally funded employment through State and local government. This shift resulted partly from the slack labor markets of most of the 1970s and partly from the lack of definitive evidence concerning the impact of training programs.

This Administration's first major economic action on taking office was to propose legislation, which the Congress enacted by mid-1977, calling for a substantial expansion of PSE. During fiscal 1978 approximately $8.4 billion will be spent on various forms of PSE. Under the enlarged programs an average of 1.4 million people will be employed over the year, a 60-percent increase over the previous year. These jobs are supposedly targeted primarily toward the low-income, long-term unemployed and unemployed youth.

The stated goals of PSE programs have been quite varied: countercyclical stimulus, reduction of structural unemployment, and fiscal relief for hard-pressed local governments. For the present purposes, however, the second of these objectives is of major interest. Can PSE programs help improve the inflation-unemployment tradeoff?

Two factors are involved in answering this question. First, in order to be an effective instrument for mitigating structural unemployment, PSE programs must concentrate on individuals who would have special difficulty obtaining employment in the private sector. If, for example, a city hired accountants or registered nurses with its PSE funds, it would only be bidding them away from other jobs. Prior to the recent program expansion, adult participants in PSE programs came from approximately the middle of the skill distribution. Relatively few of the structurally unemployed were reached.

Under the new programs for adults, eligibility is being progressively restricted to individuals who have been out of work for 15 of the last 20 weeks, and to those with low incomes prior to participating in the program. Taken in combination with the special projects requirement, these new eligibility conditions are changing the PSE programs in such a way that they should now serve more of the disadvantaged than formerly. Ignoring loopholes in the law (for example, a local government can hire recent college graduates whom it would have hired anyway and still be within the program regulations), these eligibility requirements should also help to reduce substitution of PSE funds for regular government revenues.

In periods of generally high employment, PSE programs for youth can more easily be directed toward increasing public employment without tightening the labor market for private employment. This is certainly true for minority youth, who suffer extremely high unemployment rates. It may be less true of programs for youth administered in largely white communities, for the labor market for most white teenagers appears to work reason-

ably well. The proportion of participants in the PSE youth programs who are black or belong to other minority groups is close to 50 percent, a showing that favors a positive judgment of these programs.

A second requirement if PSE programs are to reduce longer-term structural unemployment is that they provide a work experience that prepares participants for subsequent transfer to regular jobs. Programs that satisfy this condition can instill good working habits in their participants and possibly lower structural problems in the long run. PSE jobs must be real tasks rather than make-work activities, for it would be difficult to maintain discipline in a particular project if the work had little intrinsic value. This requires that PSE jobs be characterized by adequate supervision and on-the-job training. At present there is little evidence on this point for either adult PSE or for youth work experience. As the total number of PSE slots increases during 1978, much can be learned about the absorptive capacity of the State and local sector with respect to the provision of meaningful jobs to disadvantaged persons.

Do PSE programs have a significant effect on the inflation-unemployment tradeoff? This question is difficult to answer because the various PSE programs in existence have different effects on the rate of unemployment as well as on wage rates.

Suppose, for example, that participants in PSE programs would otherwise have been in the labor force but unemployed, and that the projects would not have been financed from regular State and local sources—that is, there is no "fiscal substitution." Unemployment would then be reduced by the number of persons working in PSE jobs. To the extent that those workers come from among the structurally unemployed, tightness in the labor market and inflationary pressures would not increase, and the improvement in the unemployment-inflation tradeoff would be substantial. If, on the other hand, the wage on PSE jobs is relatively attractive and the skills required to perform PSE jobs are about average for the work force in general, the programs are likely to attract persons who are not structurally unemployed or others who are not in the labor force.

In general, therefore, the effect on the unemployment-inflation tradeoff will be favorable if PSE programs are targeted toward persons whose skills are below those of the average person in the labor force, and if the wage rates on PSE jobs are not strongly competitive with those paid in the private sector.

The youth programs, especially those in which minorities participate significantly, probably offer more possibility of lowering the overall unemployment rate for a given amount of general labor market tightness than those geared toward adults. PSE can be an efficient method of introducing individuals into a structured work environment who would otherwise be passed over by the private sector.

Recognizing particularly this last potential of PSE, the Administration has proposed that a jobs program be made an integral part of the reformed welfare system under the Program for Better Jobs and Income (PBJI). The Administration proposal calls for 1.2 to 1.4 million PSE jobs designed to provide an alternative to total reliance on cash assistance. Eligibility for these new PSE jobs would be restricted to principal earners in families with children, who cannot be placed in private sector jobs. The jobs would last for no more than 1 year. The rate of compensation for the jobs under PBJI would generally be no more than 10 percent above the Federal minimum wage, but families without sufficient additional income could receive a cash supplement, and hence their total income could significantly exceed that which they would receive solely with the cash assistance they might qualify for without a PSE job.

The PSE component of this new program can do much toward reducing the cycle of poverty by introducing welfare recipients and other poor people into a structured work environment from which they can subsequently advance to steady private sector jobs. One key element in the program is that it proposes to pay wages at or slightly above the Federal minimum. If such a program offered higher wages (as does the current countercyclical PSE program, which pays an average wage about 60 percent above the minimum), the jobs would be attractive to persons with higher skills and greater ability to find private jobs. Many, perhaps most, participants would come from outside the welfare system, and the jobs component of PBJI would lose much of its ability to mitigate poverty.

Side Effects of Other Programs

In addition to these programs that are intended to lower the unemployment rate for a given amount of labor market tightness, the government runs several programs that are designed to accomplish other social objectives but have the additional, unintended consequence of increasing the unemployment rate. While the other objectives may be desirable, it is useful to be aware of their potential effects on unemployment.

As seen in Table 28, the Federal minimum wage relative to average hourly earnings has fluctuated widely over time, but at the points at which the Fair Labor Standards Act (FLSA) has been amended the minimum wage has in recent years averaged approximately 45 percent of the average manufacturing wage. The 1977 changes in the minimum wage through 1981 would roughly maintain this ratio if the average manufacturing wage grew by 7 percent annually. However, FLSA coverage has increased substantially, especially beginning in the mid-1960s. The major impact of minimum wages is on the employment of teenagers, for the market wages of most adults are considerably above the legislated minimum. There is, however, no conclusive evidence on how much of the youth unemployment problem is directly attributable to FLSA. As pointed out earlier in the chap-

TABLE 28.—*Federal minimum wage and average hourly earnings in manufacturing, selected years, 1938–81*

Year	Minimum wage	Average hourly earnings in manufacturing [1]	Minimum wage as percent of manufacturing average hourly earnings
1938	$0.25	$0.62	40.3
1939	.30	.63	47.6
1945	.40	1.02	39.2
1950	.75	1.44	52.1
1956	1.00	1.95	51.3
1961	1.15	2.32	49.6
1963	1.25	2.46	50.8
1967	1.40	2.83	49.5
1968	1.60	3.01	53.2
1974	2.00	4.41	45.4
1975	2.10	4.81	43.7
1976	2.30	5.19	44.3
1978	2.65	[2] 5.94	44.6
1979	2.90	[2] 6.36	45.6
1980	3.10	[2] 6.80	45.6
1981	3.35	[2] 7.28	46.0

[1] Relates to production workers.
[2] Assumes a 7 percent growth rate.

Source: Department of Labor, Bureau of Labor Statistics.

ter, most of the unemployment of white teenagers during periods of prosperity is caused by their high rates of labor force turnover. But it is quite possible that minimum wages are a contributing cause of the black youth unemployment problem.

The unemployment insurance (UI) system has both a real effect and a measured effect on the overall unemployment rate. The real effect occurs because the reduced cost of job search leads to an increase in both the duration and frequency of spells of unemployment. The measured effect occurs because some workers report themselves as unemployed in order to obtain UI benefits when, without the benefits, they would have dropped out of the labor force. Some form of unemployment insurance is, on equity grounds, absolutely necessary to mitigate the hardship of involuntary unemployment. Moreover, UI increases economic efficiency by making it possible for the unemployed to search for jobs for which they are well suited rather than being forced to take the first job that becomes available. But it does tend to increase the overall unemployment rate. In the past two decades, liberalizations in coverage, benefits, and benefit durations have caused the officially measured unemployment rate to increase, although an accurate estimate of the magnitude is uncertain. Some of the most notable changes in benefit duration and coverage have occurred in the 1970s.

Directions for Improvements

To reach substantially lower unemployment rates without initiating a new round of inflation, structural programs will have to be continually

improved. The first priority is better targeting of the programs so that they more effectively improve long-term job opportunities for those groups with the most severe structural unemployment problems. Although the record is far from perfect, the training and employment programs for youth have been fairly successful in this regard. Until recently, however, regular PSE programs for adults have not focused significantly on the structurally unemployed to the extent that they should. As the overall unemployment rate declines, employment and training programs should be carefully directed demographically and geographically toward this goal.

Some demographic groups have high unemployment rates, even in periods of generally tight labor markets, because many employers seek to hire new employees only from among those applicants with prior experience and a history of job stability. The high cost of labor turnover to business firms and the existence of wage floors or other barriers to hiring the inexperienced are major factors behind this tendency. Accordingly, one approach to reducing unemployment is to provide incentives for private employers to hire from among those groups with the most severe incidence of structural unemployment. This approach is sometimes criticized because it would cause a substitution of low-skilled youths for highly skilled adults and thus raise the unemployment rates of adult males. This criticism, however, ignores the fact that such a program, if successful, could induce a greater increase in aggregate demand and thus lower the overall unemployment rate. Moreover most occupations composed primarily of highly skilled adults have very low unemployment rates in the first place and tend to adjust very quickly to excess supply.

This country's experience with incentive schemes to hire the structurally unemployed is not very extensive—although similar programs are quite common in Western Europe. Since five out of every six jobs in the economy are in the private sector, a successful labor market policy must rely principally on the private sector to enlarge job opportunities for the structurally unemployed. To this end the Administration is currently designing a set of options for programs under which employers will have incentives to hire persons with severe unemployment difficulties.

A third priority for the improvement of labor market policy is the collection of better data that will permit an assessment of the extent to which its component programs are actually having a beneficial impact. At present our ability to lower unemployment without adding to inflation is severely hampered by uncertainty about the effectiveness of various approaches. Evaluative research is not easy, but without such information it is difficult to justify major expansions of incumbent programs. A principal goal of new labor market programs, like those provided under the Youth Employment and Demonstration Projects Act of 1977, is to find out which approaches are successful. This emphasis should be extended to other programs.

CHAPTER 5

Major Economic Policy Issues of 1977

IN 1977, THE NEW ADMINISTRATION INTRODUCED a number of legislative initiatives whose economic impacts will be far reaching—energy, agriculture, social security, and welfare reform. The Administration is now proposing that the Congress consider a series of fundamental tax reforms. In addition, there have been a number of proposed reforms to improve the efficiency of our regulatory programs. The present chapter analyzes these programs. Although the details differ, the central theme that runs through these programs is the same—enhancing the effectiveness of Federal programs and reducing their costs, while improving the fairness of our economic system.

ENERGY DEVELOPMENTS AND POLICY

The economic consequences of the 1973 oil embargo and the quadrupling of world oil prices by the Organization of Petroleum Exporting Countries (OPEC) have dramatically demonstrated the importance of energy to the U.S. and world economies. In the United States, higher prices of imported crude oil prompted major increases in the prices of all domestic fuels, aggravated inflationary pressures, and contributed to the deepest recession since the Depression. Moreover, mounting oil import payments have constituted an enormous drain on domestic incomes, causing a severe imbalance in our external deficit.

Nonetheless, U.S. dependence on foreign sources of energy has continued to grow. Oil imports in 1977 nearly doubled those of 1972 and supplied almost half of domestic petroleum demand. Unless we adopt effective policies to reverse underlying forces, still further growth in oil imports is likely over the coming decades.

How did this situation arise? Although the answer is by no means simple, an important element is that the current economic infrastructure—buildings, factories, machines, and automobiles—was largely designed for an era of low-cost oil and natural gas. Significant changes in patterns of energy use will occur only when more energy-efficient capital has been installed and as the existing capital stock is replaced. This is a time-consuming process, and only modest progress has been made in the last 4 years.

Of equal importance are Federal tax and regulatory policies that have encouraged low energy prices throughout the postwar era. Apart from the imposition of import quotas, energy consumption has been subsidized by tax incentives for energy production that have lowered consumer prices and, over different periods, by price controls on crude oil and natural gas. Though the various controls have generally mitigated the inflationary impact of the rise in the price of imported oil and prevented domestic producers from realizing additional gains on oil already discovered, they have contributed to imbalances between the supply and demand for major sources of energy. The disequilibrium has been evidenced in the natural gas market by growing curtailments, and in the case of oil, by rapidly rising imports.

Unless these imbalances are soon curbed, the United States may face serious economic risks. Though world oil prices have recently been stable—because of weak recoveries in most industrial nations and large discoveries in non-OPEC countries—growing world demand for oil and gas could strain world productive capacity, creating the danger of substantially higher oil prices in the years ahead. The United States can avoid the consequences of higher prices, however, by gradually converting from oil and gas to more abundant domestic sources of energy—nuclear fuel, coal, solar, and perhaps other energy sources. Because long leadtimes are required, an early transition would be less costly and would lead to less risk from higher oil prices or sudden supply interruptions in the future.

ENERGY BEFORE 1973

The principal sources of primary energy in the postwar period have been oil and natural gas. In 1950, they accounted for 58 percent of total energy consumption, while by mid-1973 the fraction had grown to 77 percent. After an earlier period of dominance before World War II, coal production fell during the postwar period. Electricity produced by these primary fuels grew rapidly owing to economies of scale and advances in technology.

Both economic growth and the declining relative prices of energy products heightened the demand for energy (Table 29). From 1950 to 1970, for example, the wholesale price of energy fell by 13 percent relative to all finished goods (though it advanced in the latter part of the period). Consumers responded by purchasing homes, automobiles, and appliances that required substantial inputs of energy; firms substituted energy and capital for labor in constructing buildings and factories and in manufacturing their goods. The entire American way of life, from the spread of the suburbs to the popularity of large automobiles, has been conditioned by low-cost energy.

Aside from the imposition of oil import quotas, Federal Government policies stimulated energy demands. Percentage depletion allowances in excess of cost reduced all energy prices by lowering producer tax liabilities. Price controls on natural gas sold to interstate pipelines have long held prices below the energy equivalent prices of substitute fuels. In addition, government regulation of the motor carrier and air transportation industries promoted

TABLE 29.—*Trends in energy consumption and deflated energy prices*

Item	Average annual percent change		
	1958 to 1973	1973 to 1976	1976 to 1977 [1]
Energy consumption:			
Total	4.0	−0.1	4.3
Petroleum and natural gas liquids	4.1	.2	6.1
Natural gas	4.9	−3.4	1.1
Coal	2.0	1.1	8.4
Net electric power generated	7.3	3.2	6.1
Average producer prices: [2]			
Crude oil	−.4	16.5	2.0
Natural gas	1.9	26.3	26.7
Coal	1.7	19.6	−1.7
Wholesale prices: [2]			
All energy	.2	14.1	7.9
Petroleum products	−.1	17.3	4.8
Natural gas	1.6	18.6	38.0
Coal	3.4	8.3	.6
Electric power	−.4	6.4	6.9
Consumer prices: [3]			
All energy	−.8	6.2	2.9
Fuel oil and coal	.0	12.9	6.1
Gasoline and motor oil	−1.0	5.1	−.8
Natural gas	−.4	7.1	11.6
Electricity	−1.2	3.5	.1

[1] Changes for energy consumption and wholesale prices computed from third quarter 1976 to third quarter 1977. Other changes are from year to year.

[2] Prices deflated by the wholesale price index for all finished goods.

[3] Prices deflated by the consumer price index for all items.

Sources: Department of Energy, Department of Labor, Federal Power Commission, and Edison Electric Institute.

energy consumption by encouraging excess transportation mileage through artificial route restrictions and prohibitions on price competition. Finally, government support favoring highways over mass transit contributed to increased gasoline consumption.

The absence until recently of significant environmental legislation also encouraged energy consumption. Energy industries tend to produce relatively large environmental side effects whose costs are not reflected in energy prices. Not until the late 1960s did the U.S. Congress begin to take major steps to deal with this problem.

At the close of 1972, therefore, the United States found itself locked into a capital stock tailored to low-cost oil and natural gas. Oil demand, which had grown at an average annual rate of 4.4 percent since World War II, had outstripped production growth, requiring oil imports of nearly 5 million barrels a day. A significant portion of our low-cost oil and natural gas resources had been depleted, portending higher costs of discovery and production. The market, however, provided no signs of a reversal: Americans were accustomed to cheap energy and expected it in the future.

THE 1973–74 PRICE SHOCK

Events during 1973 and 1974 dramatically altered prior energy price patterns. In November 1973 the Arab members of OPEC placed an em-

bargo on oil exports to a number of other countries, including the United States. Following previous substantial price increases, OPEC quadrupled the world oil price to levels far in excess of its costs and cut back production to support the action.

In the events that followed, it is important to distinguish between the effects of the embargo and those produced by the rise in oil import prices. The embargo itself lasted only 5 months and generated shortages within the United States, in part because petroleum product prices were controlled. Cold weather and previous curtailments of natural gas supplies exacerbated the problem. Shortages would have been mitigated without price controls, but the resulting high prices would have created substantial windfall profits and added to inflation.

Whereas the economic consequences of the embargo were limited and confined to a relatively short period, the economic costs of adjusting to higher prices of imported oil were enormous and persist to this day. The adjustment has been accompanied by significant advances in the prices of other fuels (Table 29). Both the embargo and the price rise have taught a common lesson, however: vulnerability to supply interruptions and price increases can only be reduced through a fundamental reorientation in patterns of energy use.

DEVELOPMENTS AFTER THE PRICE SHOCK

Though the price shock has had important effects around the world, the impacts have differed between countries.

Domestic

Prices of all fuels in the United States increased sharply following the rise in oil import prices (Table 29). Except for natural gas prices, however, rates of price increase generally slowed, or in some cases, fell in 1976 and 1977.

Though consumers have had only a short time to adapt, energy consumption patterns have already evidenced some response to the higher prices. The ratio of total energy consumption to real gross national product, GNP, for example, stood 5 percent lower in mid-1977 than in 1973. More significantly, the ratio dropped as the economy pulled out of its 1973–75 recession, an important sign that higher prices had discouraged consumption.

Nevertheless, after falling in 1974 and 1975, total energy consumption resumed its upward climb in 1976 and 1977 as real GNP advanced. Consumption of petroleum products, in particular, rose rapidly in 1977, as a result of several factors that outweighed the dampening effects of higher prices. The cold winter in 1977 increased heating demands generally and oil demand specifically because many users of natural gas switched to oil when gas supplies were curtailed. Demand for distillate and residual fuel oils in the first 2 months of the year, for example, was up by 1.6 million barrels per day compared with the same period in 1976. The West Coast drought added

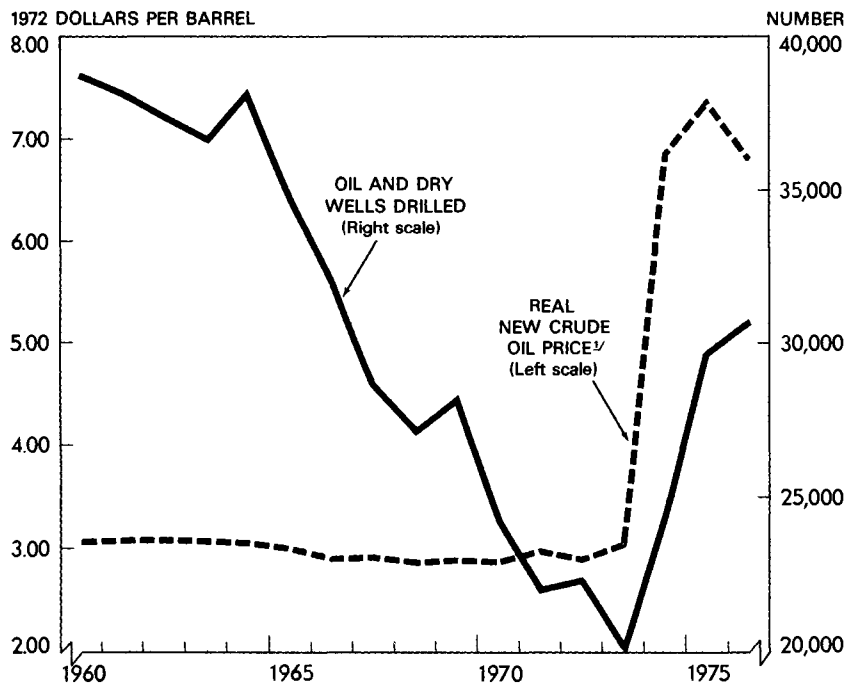
especially to residual oil demands by inducing many utilities to turn from hydroelectric power to oil-based generation.

In contrast, energy production has declined since 1973, although the responses to higher producer prices have varied between fuels. For example, after falling in 1973, coal production rose, largely because the sharp rise in oil prices encouraged some oil users to switch to coal and because of the rapid growth in electricity production. Environmental restrictions on coal burning under the Clean Air Act, however, restrained both coal demand and production. Electricity production, too, continued to advance, although at rates below those experienced prior to 1973. Sharply increased primary fuel prices raised final electricity prices to consumers, and therefore discouraged consumption.

Production of crude oil and of natural gas, on the other hand, has fallen from 1973 levels. In the case of crude oil, though drilling activity responded to a sharp rise between 1973 and 1976 in the new wellhead price (Chart 12), the average depth of wells drilled fell. Declining output from existing wells more than offset the rise in new discoveries, producing a decline in total crude oil production in the lower 48 States between 1970 and 1977.

Chart 12

New Crude Oil Prices and Drilling Activity



1/ NOMINAL PRICE DEFLATED BY WHOLESALE PRICE INDEX FOR FINISHED GOODS.

SOURCES: DEPARTMENT OF ENERGY, DEPARTMENT OF LABOR, AND AMERICAN PETROLEUM INSTITUTE.

In 1977 the declining trend in national crude oil production was reversed by the September opening of the Trans-Alaska Pipeline System (TAPS). Alaskan production was slowed, however, by a fire at a major pump station in July and by difficulties with others, which reduced present TAPS capacity from 1.2 to approximately 0.7 million barrels per day. The lack of a pipeline linking the West Coast to the Midwest threatened to force shipment of additional volumes of Alaskan oil through the Panama Canal. Such an outcome would raise transportation costs substantially and possibly discourage future increases in deliveries or expansion of TAPS capacity.

Production of natural gas has followed a similar course, declining gradually between 1973 and 1976 and leveling off through the third quarter of 1977. Like oil production, gas drilling activity responded to recent price increases in both the interstate and intrastate markets; declining output of existing wells, however, had until 1977 more than offset new production. The production trend since 1973 represents a particularly dramatic reversal: from 1950 to 1973 natural gas was the fastest growing domestic source of primary energy.

With energy consumption registering a small increase between 1973 and 1977, the decline in energy production has created a growing imbalance between production and demand, particularly for oil and natural gas. In the case of natural gas, the excess of demand over production has remained largely unsatisfied. Until the quadrupling of oil prices, the importation of significant quantities of liquefied natural gas (LNG) was not economic, limiting the import market to contiguous nations, Canada and Mexico. As a result, natural gas imports have remained less than 5 percent of domestic consumption.

The inability of domestic and imported natural gas to satisfy demands has resulted in curtailments of natural gas supplies. Since 1971, despite a decline in total consumption of natural gas, the volume of gas curtailed to users with firm supply contracts has increased by a factor of over 10. The shortage reached a peak owing to the cold weather in the first quarter of 1977, when net curtailments to firm users rose to nearly 1 trillion cubic feet, or almost 16 percent of total gas consumption.

Curtailments have grown largely because of the way in which natural gas prices have been controlled. Since 1954, prices of natural gas sold to interstate pipelines, have been subject to Federal regulation. Natural gas sold to intrastate pipelines, however, has remained unregulated. During the 1960s, when intrastate prices were generally below interstate prices, new commitments to interstate pipelines exceeded those to the intrastate market. During the 1970s, however, intrastate prices increased at a much faster rate despite several increases allowed in the price for new interstate commitments. For example, although the 1977 interstate price ceiling of $1.47 per thousand cubic feet (mcf) for new contracts stood nearly triple its level of 1975, new long-term intrastate contract prices ranged between $1.41 and $2.19 per mcf in the major gas-producing States, according to a survey made by the Federal

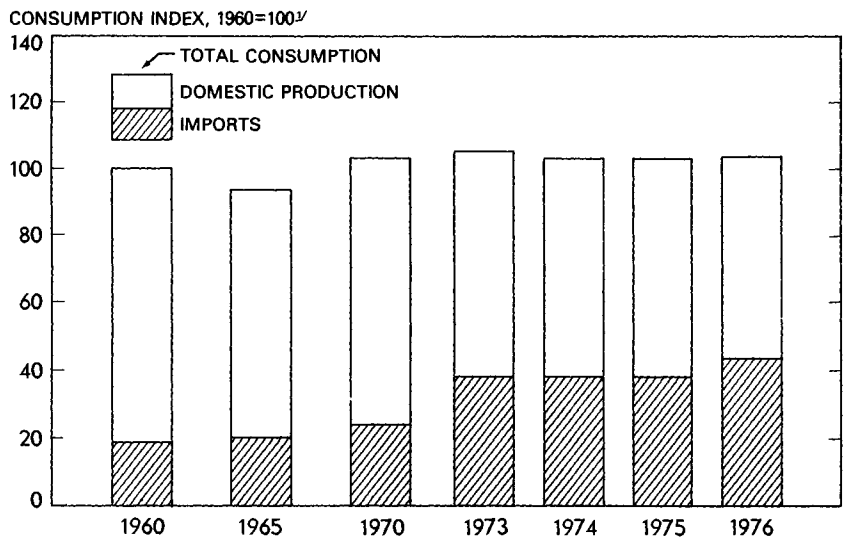
Energy Regulatory Commission. The higher intrastate prices have encouraged producers to commit most new gas to the intrastate market, creating growing shortages in net consuming regions, such as the Northeast.

At the end user level, pricing policies by state regulatory commissions have exacerbated the shortage by encouraging consumption. Faced with gas contracts at a wide range of prices, commissions have allowed distribution companies to charge their customers the average of all wellhead contract prices. New, higher-cost gas has consequently been "rolled-in" with the average cost of all previously discovered gas. Although rolled-in pricing caused only minor problems when average and marginal gas prices were relatively close, today it introduces major distortions in energy pricing. Consumers are faced with low average historical costs when new supplies are often substantially more expensive. This distortion could worsen if high-cost gas (such as LNG or synthetic gas) is also priced on a rolled-in basis.

With crude oil, unlike gas, the excess of demand over domestic supply has been met by a mounting volume of imports. Between 1972 and 1977, oil import levels rose 92 percent. Import costs increased from nearly $5 billion in 1972 to about $45 billion in 1977. Most significantly perhaps, oil imports climbed relative to GNP, although total oil consumption as a fraction of GNP has remained nearly constant during the last 20 years (Chart 13).

Chart 13

Oil Consumption and Imports Relative to Real GNP



1/ INDEX OF BARRELS/REAL GNP (1972 DOLLARS).
SOURCES: DEPARTMENT OF COMMERCE AND DEPARTMENT OF ENERGY.

As with the natural gas shortage, Federal policies have also encouraged the growth of oil consumption and consequently of oil imports. Controls on the prices of crude oil, in particular, have played instrumental roles in this process. Created in 1971 to soften the macroeconomic and distributional impacts of oil price increases, the system of oil price controls has evolved over time so that it now covers three categories of oil: (1) "old oil," defined as 1972 base period production, (2) "new oil," defined as oil production above 1972 base period levels or oil discovered after May 15, 1973, and (3) oil recovered through tertiary production methods. Higher prices have been allowed for the latter two categories to encourage domestic exploration and production. Price controls do not apply to "stripper wells" (those producing less than 10 barrels per day) for the same reason.

The control system has been administered to meet statutory requirements that the average price of all domestic crude not exceed a "composite" (or weighted-average) price. For the first half of 1977 the prices of old, new, and stripper oil averaged $5.16, $11.12, and $13.29 per barrel respectively, producing an imputed domestic average of $8.22 per barrel. This average was well below the composite price ceiling of $8.47 and the average landed oil import price of $14.21.

By creating different prices for oil of different vintages and sources, the control system, in the absence of other measures, would have placed oil refiners having access to predominantly high-priced crude at a disvantage compared to other refiners. Since November 1974, however, refiners have generally been placed on the same footing through an entitlements procedure ensuring that each refiner effectively pays only the average cost of both imported and domestic crude. Separate allowances have been made to enable small refiners to remain competitive. Nevertheless, by confronting consumers with prices below those the United States must pay for additional oil, the control and entitlements system has subsidized oil consumption. With domestic crude production at or near capacity, the added consumption has increased the demand for oil imports.

Federal price regulation of natural gas and environmental restrictions on the burning of coal have also done much to stimulate the growth of oil imports. Specifically, rising gas supply curtailments resulting from the way natural gas prices have been regulated have prompted many industrial and utility users to look to alternative fuels. Because of limitations placed on coal burning by many State air quality implementation plans, however, users who have wished to convert their existing facilities have been restricted to oil. Air quality regulations have also dictated the use of either oil or gas for many new facilities as well.

The only major policy initiative passed after the embargo that should reduce petroleum consumption was contained in the Energy Policy and Conservation Act (EPCA). Passed in 1975, EPCA established fuel efficiency standards for automobiles and trucks, beginning with 1978 models. The act

will have a gradual impact on oil consumption, as the current generation of automobiles and trucks is replaced by more energy-efficient vehicles.

International

The oil price rise in 1973–74 had major effects on all oil-importing nations, some of which are discussed in Chapter 3. As in the United States, economic growth slowed considerably or even declined in the major industrial countries (Table 30). Total energy consumption, however, fell much less rapidly in the United States between 1973 and 1976 than in any of the listed countries except Japan. Correspondingly, though crude oil imports fell elsewhere, they rose more than 60 percent in the United States during the period.

TABLE 30.—*Growth of GNP, energy consumption, and oil imports in major industrial countries, 1967–76*

[Average annual percent change]

Country	1967 to 1973			1973 to 1976		
	GNP	Energy consumption	Crude oil imports	GNP	Energy consumption	Crude oil imports
United States	3.7	4.2	19.4	0.8	−0.1	22.7
Canada	5.3	8.1	12.1	2.7	−3.5	−7.2
France	5.8	6.4	10.8	2.5	−.7	−3.5
West Germany	5.5	6.2	7.4	.9	−1.3	−3.5
Japan	10.2	9.6	14.5	2.4	.5	−2.2
United Kingdom	2.9	3.1	7.4	.0	−2.8	−8.6

Sources: Department of Commerce, Organization for Economic Cooperation and Development, and British Petroleum Company, Limited.

Throughout the postwar period many of these countries have used various taxes that have discouraged consumption. For example, prior to 1973–74, gasoline excise taxes in Japan, France, the United Kingdom, and Italy stood between 32 cents per gallon (United Kingdom) and 65 cents per gallon (France), well above the average excise tax of 12 cents per gallon on gasoline in the United States. Since 1973 each of these countries has again raised its gasoline tax. By 1977, although the average tax had remained unchanged in the United States, it ranged between $.55 and $1.48 in the countries just indicated.

Two countries that have taken particularly far-ranging actions since 1973 have been Sweden and France. In Sweden, where foreign sources of energy supply 80 percent of fuel demands, a substantial gasoline tax has since been supplemented by a fee on automobiles based on gasoline mileage efficiency. Excise taxes levied on coal, heavy and light fuel oil, and electricity have been changed. New or expanded government subsidies, loans, and taxes also provide incentives for uncovering new energy sources as well as innovative energy-efficient processes.

In France, higher prices and increased taxes have been combined with mandatory measures to lower the use of oil from 1973 pre-embargo levels,

in sharp contrast to the rapid growth in such use that France experienced between 1967 and 1973. In the residential sector these measures have been supplemented by metering requirements for central heating and hot water and by tax credits for installing insulation.

The policy initiatives and oil import trends in these industrial countries contrast sharply with energy developments in the United States since 1973. To some degree, differences in economic and cultural conditions have accounted for the variations in both energy policies and oil imports; policy actions taken in one country are not necessarily appropriate for others. Nevertheless it is significant that the steps taken by several major industrial nations have emphasized measures discouraging consumption by allowing prices to reflect social costs. Until the National Energy Plan (NEP) efforts in the United States have tended to do just the opposite.

THE NATIONAL ENERGY PLAN

Upon assuming office, the new Administration faced the dual concerns of rapidly rising oil imports and growing natural gas shortages. Both posed risks of future supply interruptions. The high level of oil imports also threatened the independence of U.S. foreign policy and imposed a substantial drain on the U.S. economy. Over the longer run the Nation faced the need to begin the transition from oil and gas toward more abundant energy resources. The new Administration recognized the critical importance of a comprehensive energy policy that would address these concerns and in April proposed to the Congress a National Energy Plan.

Economic Principles

To achieve both its short- and long-run energy objectives, the energy plan relies principally on mechanisms that bring prices and social costs of energy together. Social costs represent the sum of private costs (energy production costs and the cost of oil imports) and the costs of important side effects (environmental damage and the risks to national security and to future economic activity posed by energy imports). Although the high price of oil imports exceeds the costs of production in the OPEC countries, it nevertheless represents the social cost to the United States of acquiring additional supplies. At the same time, each component of the plan balances the important principle of efficient use of energy with the goals of fairness, sustained economic growth, reduced inflation, and a clean environment.

Raising energy prices to reflect costs more closely should have significant effects, and these will grow over time. In the short run, energy consumption is largely determined by the utilization of existing energy-using devices—machines, vehicles, and buildings. Short-run movements in energy prices are therefore likely to have only limited effects on energy consumption. After a short lapse of time, the effects grow as users respond to higher prices by adjusting the current capital stock—installing, for exam-

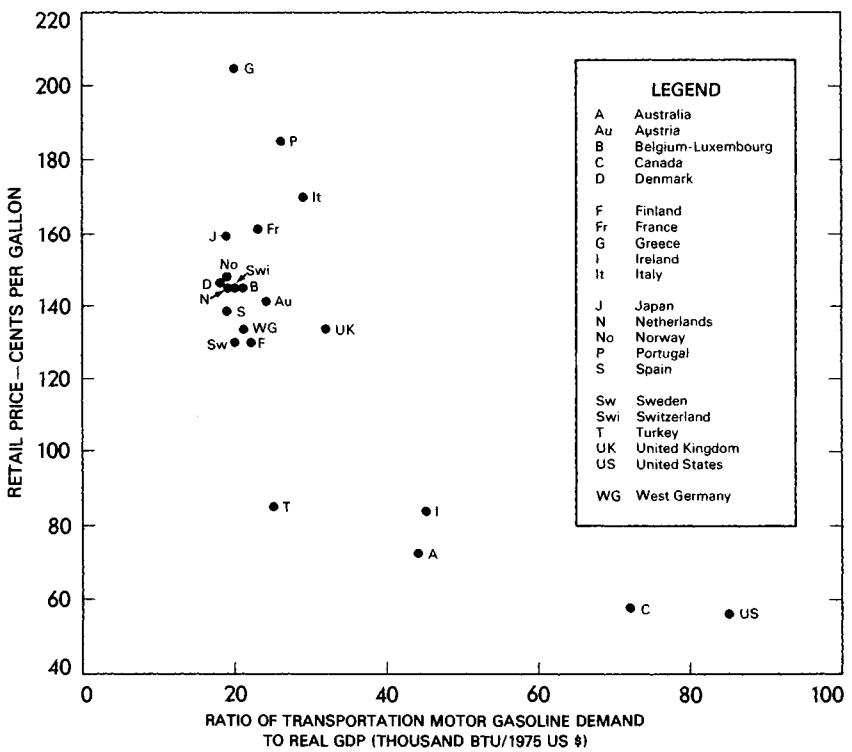
ple, insulation or electrical management devices. As the existing capital stock is gradually redesigned and replaced and as the higher prices induce changes in consumption patterns and lifestyles, even greater changes should be seen in energy usage patterns.

Since the policies proposed in the NEP are designed to affect energy use over an extended period, the long-run response of energy consumption to higher prices is of particular interest. There is now a large body of econometric and engineering evidence indicating very substantial responses of energy demand to changes in price over time. An oversimplified but revealing way of demonstrating the long-run response is to show for a single year consumption differences across countries that have had wide and long-standing differences in the levels of energy prices. If differences in the energy price levels have persisted for some time, the consumption variations (controlling for variations in incomes) should reveal long-run responses.

Availability of data allowed such an experiment for petroleum use in transportation in 1975 (Chart 14).

Chart 14

Cross-Country Comparison of Motor Gasoline Demand in 1975



SOURCE: ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT.

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Recent studies have shown that the greatest international difference in ratios of energy to total output is due to variations in transportation use. Though the cross-country comparison here cannot reflect differences in highway and mass transit availabilities between countries, in cultural factors, or in other tax policies, the marked variations in transportation patterns are particularly striking. Countries that charged their consumers the highest prices for motor gasoline showed the lowest transportation petroleum use relative to their national income. In the United States and Canada, on the other hand, where gasoline prices were less than 50 percent of levels elsewhere, the intensity of oil consumption was approximately double that of the other countries. These results are particularly significant because the variation in prices between these countries is largely due to differences in gasoline tax levels, thereby indicating that differences in consumption primarily reflect demand rather than supply responses. Finally, though uncorrected for other salient differences between countries, these responses of transportation petroleum demand to price changes are indicative of the potential long-run effects of more rational energy prices.

The NEP also recognizes the role played by prices in producers' decisions. Under current law, domestic oil and natural gas prices are controlled at levels well below the prices of either imported oil or intrastate gas. While the plan recognizes the importance of encouraging exploration, it also recognizes the central importance of raising prices only for new production. Increasing prices for existing production to levels artificially inflated by a cartel would primarily transfer very large sums from consumers to resource owners without generating significant additional supplies.

Specific Proposals

The NEP contains seven principal elements:

1. *Crude oil pricing.* To eliminate both the subsidy of imported oil and the administrative difficulties of the entitlements system, the NEP calls for a wellhead or a crude oil equalization tax (COET) to be phased in over 3 years. By 1980 each barrel of controlled oil would be taxed at the difference between the import price and its controlled price. Domestic and import prices would be equalized, and the need for the cumbersome entitlements system would vanish.

In addition, through administrative actions certain categories of oil would receive higher prices to encourage exploration and development. "Brand new oil" (that is, oil discovered after April 20, 1977, in wells meeting certain geographical and depth criteria) would receive the 1977 world price, adjusted thereafter for increases in the general price level. This represents a 20-percent increase over the present new oil price. Oil recovered through new tertiary recovery would be decontrolled as is now the case for stripper well production.

Coupled with the wellhead tax, these new incentives raise purchase prices of all domestic oil to world levels—that is, to the cost to the Nation

of meeting added oil demands. The receipts from the COET, estimated to range between $11 billion and $14 billion by 1980, would be rebated to consumers on a per capita basis. Rebates would restore the loss in consumer purchasing power caused by the tax.

At the user level, the plan adds a tax on industrial and utility use of oil, beginning in 1979 for industrial users and in 1983 for utilities. Over a 5-year period, the tax would increase petroleum costs by up to $3.00 per barrel for industrial and $1.50 for utility use. The user tax is designed to increase the user price of oil to reflect the social costs posed by the risk of continued high levels of imports, and is targeted to the users most easily able to conserve and convert to other fuels.

2. *Natural gas pricing.* Because the market is so far from equilibrium, the problems of natural gas have been among the most difficult to solve. One commonly suggested solution would decontrol the prices of all new gas. Though such a step would eventually clear the natural gas market, it would make available relatively small quantities of additional gas—at the cost of substantial inflation and inequity. The inflationary impact of decontrol could be especially severe under the current system of rolled-in pricing. The decontrolled prices of new gas would be averaged with much lower cost production, allowing the prices of unregulated gas to rise well above the oil price equivalent.

The natural gas pricing provisions of the NEP address the major problems—geographic supply imbalances, insufficient producer incentives, and excessive natural gas consumption—without imposing severe inflationary consequences or generating inequitable transfers of income. Thus the plan proposes an increase in the current price allowed for new interstate commitments, and replacement of the present system of "vintaging" new contracts with a single price for all new gas discovered after April 20, 1977. Regional imbalances between gas supply and demand would be corrected by a price ceiling applicable to both the interstate and intrastate markets.

Two proposals at the user level would further improve the efficiency of natural gas pricing. First, the present rolled-in pricing structure would be replaced by a system designed to economize on natural gas use. Specifically, all utilities distributing natural gas would be required to pass on the costs of more expensive replacement gas to low priority (largely industrial) users, many of whom currently face the lowest tariffs. Over time, this would encourage conversions from gas by those most able to respond to the price change.

The end user pricing reforms would be supplemented by a tax on the industrial and utility use of natural gas. Like the user tax on oil, the gas user tax would be implemented in 1979 for industrial users and in 1983 for utilities, and phased in gradually. The price of gas to industrial users would eventually be raised to the equivalent price of oil. Together with the other natural gas proposals, the gas user tax would, over the long run, substantially

reduce curtailments by raising prices of natural gas to levels that reflect the opportunity costs of gas use.

3. *Coal conversion.* Provisions in the NEP that increase the prices of oil and gas will encourage a search for alternative fuels. Though the low cost and relative abundance of coal make it a particularly attractive alternative, the continued vulnerability of the United States to oil price increases and supply interruptions suggests that further acceleration of the coal conversion process would be in the national interest.

Toward that end the NEP proposes two important measures. To supplement the taxes on oil and gas use, the plan proposes that firms be eligible for either an additional 10-percent investment tax credit for conversion expenditures or a rebate of any user taxes paid, up to the amount of any expenditures incurred for conversion to coal or other fuels. Under proposed regulations, the burning of oil and gas in all major new utility and industrial boilers would be prohibited, with some environmental exceptions. Authority would also exist to prohibit the burning of oil or gas in non-boiler facilities or in existing facilities with coal-burning capabilities. The plan proposes Federal monitoring of the coal transportation system to ensure that it will accommodate the expected growth in coal production and use.

4. *Conservation.* A major feature of the plan is its fuel conservation package, which includes a blend of taxes, tax incentives, and regulatory requirements. The principal tax measure, in addition to those discussed above, proposes a graduated "gas guzzler" tax on new automobiles with fuel efficiencies below the fleet average levels required under EPCA. Significant tax incentives include tax credits for home and building insulation and a large credit for solar heating and cooling equipment. Finally, the plan encourages cogeneration and district heating and proposes the establishment of mandatory minimum energy efficiency standards for major appliances.

5. *Utility rate reform.* The NEP proposes a series of initiatives to confront electricity users with prices that reflect incremental costs of production more closely than has been true under current modes of regulation. For example, promotional declining block rates and other rates that do not reflect marginal costs could be phased out. Such rates are particularly inappropriate now that electricity in many areas is no longer produced under conditions of declining costs.

Under the NEP, utilities would be required either to offer daily off-peak rates to customers willing to pay metering costs or to provide a direct load management system. In addition, they would be required to offer lower rates for interruptible service. Finally, master metering, which removes incentives to conserve, would be prohibited in new structures.

6. *Nuclear power policy.* Though the plan envisions growing reliance on nuclear power, advanced nuclear technologies that are uneconomic or pose significant risks of nuclear proliferation are deemphasized. In particular, the Administration in 1977 proposed to cancel the commitment to the construction of the Clinch River Breeder Reactor Demonstration Project and indef-

initely defer the reprocessing of nuclear fuel, a necessary part of a commercial breeder system. In part, these decisions were based on the revised economic outlook—slower growth of electricity demand and higher expected capital costs for the breeder. In addition, the Administration was determined to push forward with plans to develop a second-generation power reactor that would have a smaller risk of proliferation.

Common to all nuclear technologies are the problems of safe long-term waste disposal. The plan emphasizes the importance of safe waste disposal, which is receiving more top management attention and larger budgets than previously.

7. *Oil supply interruption insurance.* To the extent that the above elements of the NEP successfully discourage oil consumption, the United States will be less vulnerable to possible future oil supply interruptions. Nevertheless, even under the most favorable circumstances, the United States is expected to continue importing oil. To provide added insurance, therefore, the plan proposes the creation of a Strategic Petroleum Reserve (SPR), which received its first oil shipments in July 1977. Current policy calls for storage of 500 million barrels by the end of 1980—enough oil to cover a 4-month interruption of 4 million barrels a day.

By the end of the year the House-Senate Energy Conference Committee reached compromise agreements on three of the principal elements of the plan. The agreements included coal conversion regulations much like those proposed in the NEP but with a greater number of exemptions, utility reforms that State regulatory commissions would be required to consider but not to adopt, and requirements that utilities "audit" buildings to determine their energy conservation potential (but not to finance the installation of insulation as the NEP had proposed). Also approved was a system of grants and loans for energy conservation and solar energy.

The other elements of the plan, including the oil and natural gas pricing provisions and the proposed energy taxes, await further consideration and final action by the committee. Passage of this legislation is critically important if the United States is to lay the foundation for secure economic growth over the coming years.

Projected Impact of the NEP

Though long-run projections are difficult to make, the Department of Energy (DOE) projects that 1978 passage of the NEP, as originally proposed, would reduce oil imports by approximately 4.5 million barrels per day by 1985, compared to the effects of current policy. Natural gas pricing provisions are projected to reallocate natural gas to high priority uses and to stimulate additional production through higher prices. The incentives for conversion to coal and the equalization of intrastate and interstate prices are expected over the long run to reduce curtailments substantially.

In addition the coal conversion program and rationalization of pricing in alternative fuel markets are projected to increase the use of coal by 1985 by

approximately 200 million tons over projected levels without the plan (the equivalent of over 2.4 million barrels of oil per day).

The short-run effect of the plan on the aggregate demand for goods and services is expected to be quite small because it has been designed to change the prices of energy relative to other products, without changing the overall level of demand for goods and services. Energy taxes, for example, are largely offset by both tax rebates and new expenditures to prevent reductions of consumer purchasing power. As a result the plan is expected to change aggregate demand in the short run by no more than a few tenths of a percent in either direction. Over the long run, because the plan will improve economic efficiency by rationalizing patterns of use in the energy sector, it should produce a more rapid growth in potential output.

The major foreseeable economic consequences of the program will follow from the effect of the increased prices for petroleum and petroleum products and for natural gas. The annual rate of inflation in 1978 and 1979 is expected to be 0.3 to 0.4 percent higher with the program than without it. In the subsequent 2 years, the inflationary impact of the program is projected to subside to between 0.1 and 0.3 percent.

OTHER ENERGY POLICIES

Policies aside from the NEP concentrated principally on supply measures. Long-term prospects for gas supply were substantially improved by Presidential and congressional approval of the Alaska Natural Gas Pipeline. Expected to be operational in 1983, the pipeline will cross both Alaska and Canada (following the "Alcan" route) before connecting with the interstate pipeline system in the United States. At capacity, it will transport 0.8 trillion cubic feet per year and supply approximately 5 percent of total U.S. gas consumption.

Though imports of natural gas are now relatively small, substantial additions could be made by Mexican imports and new liquefied natural gas projects. Pending before the Economic Regulatory Administration (ERA) of the Department of Energy at the close of the year were several proposals that, if eventually approved, could permit importation of over 4 billion cubic feet per day by 1985. ERA must decide on a multitude of issues—reliability, independence, siting safety, accident liability, and pricing—before giving its final approval.

The pricing issue, in particular, raises the important question whether the present method of rolling-in new gas prices will continue or whether another method will be found of moving to a system where users face more realistic prices for higher-cost gas. Because continuation of rolled-in pricing would confront consumers with prices below the costs of replacing the gas they consume, policy makers face a challenge in arriving at feasible and economically efficient policies for pricing LNG in the future.

FOOD AND AGRICULTURAL POLICY

Since the end of the 1920s the United States has undertaken a variety of programs directed at mitigating problems in agriculture. For much of this time the major problem has been chronically low returns to the resources employed in agriculture. The problem was evident in declining relative prices and in the lower incomes of farm people compared with those of nonfarm people. The pattern of low returns was recently interrupted for a brief period from 1973 to 1975, during which prices and incomes were substantially higher. Since then, however, prices and rates of return have declined sharply, and the policy concerns of earlier years returned in 1977.

THE POLICY PROBLEM

From the mid-1950s until 1973 the agricultural sector was plagued with chronic surpluses. During that period, productive potential substantially exceeded consumption. The adoption of new technology and the substitution of machinery, fertilizer, pesticides, and energy for human labor produced major increases in farm productivity, yet prices were not allowed to fall to clear markets. The exodus from farming, the increasing size of farms, and the net population outflow from rural areas that had begun much earlier accelerated. Only in recent years have these forces subsided.

The government has employed a variety of policy instruments in efforts to maintain farm incomes at socially acceptable levels. Such instruments have included supply control through production restrictions (such as acreage set-asides), direct income transfers, and a government-provided market of last resort to support commodity prices.

Beginning in 1972 the situation in agriculture began to change. A number of forces were gradually evolving in the world economy and acting to create a better balance between demand and supply for the output of American farms. Rapid growth in worldwide population and income, together with a growing sensitivity to hunger and malnutrition in many parts of the world, were leading to increased demands for U.S. agricultural output. The shift of some centrally planned economies from being food exporters to being net food importers worked in the same direction. The supply of U.S. farm output, meanwhile, was rising less rapidly. Yield increases fell behind the impressive gains of the 1960s. Accompanying these long-run developments were several events of the early 1970s that also resulted in abrupt changes in the supply-demand balance for food. These included major realignments of foreign exchange rates, poor crop harvests due to adverse weather, and changes in the policies of major countries, especially the Soviet Union, toward responding to food shortages.

As a result, from 1973 to 1975 the agricultural sector enjoyed nearly unparalleled prosperitv, with record volumes of exports pushing commodity prices to new highs. But this economic boom was not without side effects. Domestic food costs increased sharply, and such concerns led to the imposition of export embargoes that strained long-standing trading relations. The domestic livestock industry endured one of the most unprofitable periods in its history, land prices were bid up substantially, and debt for farmland purchases was incurred on the basis of unsustainable conditions.

By the end of 1977, however, conditions in the farm sector had again become similar to those of the pre-1972 era. U.S. farmers had harvested their third consecutive bumper crop, and grain stocks were rebuilt significantly from the low levels reached in 1974–75. Production expenses continued to increase while commodity prices were falling, and the volume of farm debt soared. The crop commodity price index had declined 27 percent from the peak in 1974, and large government price support activity was in prospect. Aggregate real net farm income was approaching the levels of the 1960s. The unrest among producers was manifest in the widely publicized farmers' strike that started in late 1977.

With the apparent return of the farm income problem, the deeper question remains whether there has been a fundamental shift in the patterns of price and utilization in agriculture. There is no doubt that with only a few successive years of favorable weather, the U.S. agricultural machine has the capacity to create again the "surpluses" with which agriculture has so long been associated. It is not clear whether the current period is only a short-term reaction to low worldwide incomes and abnormally good weather, or evidence of a return to chronic conditions of oversupply. As noted below, some signs indicate serious global risks of a return to high prices, given the margin of stocks over consumption.

Thus, while the familiar problem of low incomes in agriculture had returned in 1977 and its end was not in sight, the context was new and still unfamiliar. American farmers are now increasingly dependent on volatile world markets, while both producers and consumers are more vulnerable to wide price fluctuations and renewed inflationary pressures.

INCOMES IN AGRICULTURE

It is no longer possible to generalize meaningfully about the economic status of the agricultural sector. Farms are not uniform; a wide diversity of types and sizes of farms exists in every region of the country. Furthermore, the economic health of the farm sector must be distinguished from the economic well-being of the farm people. The commercialization of farming and the emergence of dependence on both farm and nonfarm sources of income have altered the meaning of comparisons based on aggregate measures of agricultural income.

Real net farm income in 1973 reached the highest level since World War II. Though down sharply from that peak in 1974–75, it remained well above the average of the previous decade. Gross income has since declined further with recent large crops and falling prices. Combined with escalating production expenses, this reduced the real net income from farming in 1977 to the lowest level of this decade (Table 31).

TABLE 31.— *Real income and returns to agriculture, 1970–77*

Year	Total net farm income [1]	Capital gains [2]	Rate of return on equity capital		Off-farm income (billions of 1967 dollars) [1 3]
			With capital gains included	With capital gains excluded	
	Billions of 1967 dollars		Percent		
1970	12.2	−3.5	3.5	4.9	12.4
1971	12.0	7.6	7.7	4.7	12.6
1972	14.9	24.3	14.3	5.4	14.0
1973	25.0	58.6	25.4	7.6	14.7
1974	17.7	8.7	7.9	5.3	14.6
1975	15.1	10.0	7.4	4.4	14.1
1976	11.7	18.9	8.7	3.3	14.2
1977 [4]	11.5				14.3
1970–76 average	15.5	17.8	10.7	5.1	13.8

[1] Deflated by the consumer price index.
[2] Calculated as the change in physical asset value less net investment plus the change in net financial liability, where each component is first deflated by the consumer price index.
[3] Off-farm income includes all income received by farm residents from nonfarm sources such as wages and salaries from nonfarm employment, nonfarm business and professional income, rents from nonfarm real estate, dividends, interest, royalties, unemployment compensation, and social security payments.
[4] Preliminary.

Sources: Department of Agriculture and Department of Commerce.

The level of aggregate real income must be viewed in a historical context. Claimants to farm income have become fewer each year. Today the number of Americans who earn their living from farming is about half the figure two decades ago, and they no longer perform many of the production services once carried out on the farm. Moreover the distribution of total earnings is heavily skewed to the largest farms. In 1976, 63 percent of realized net farm income was earned by 17 percent of the farms.

An aspect of the returns to farming that is often overlooked is capital gains. Asset values in real terms were relatively stable during the 1960s, but they increased markedly in 1972–73 with buoyant expectations of future earnings. Though the pace has slowed since 1973, the increase in real capital gains has continued, averaging $18 billion annually in this decade. However, these gains accrued largely to owner-operators and landlords, not to the tenants who utilize almost half of the total farm land.

If the expectations generated during 1973–74 are discounted, resource earnings to equity capital through 1976 do not appear abnormally low relative to historical experience in agriculture (Table 31). The real rate of return to farmers' equity capital from 1970 to 1976 averaged 10.7 percent

annually before income taxes but including capital gains. Excluding capital gains, the rate of return averaged 5.1 percent. The farm sector rates of return for the 1970s are not far from rates in the nonfarm economy. For example, the average annual rate of return to nonfinancial corporate capital for 1970–76 was 6.9 percent. Slight definitional differences preclude strict comparison, however. It should be recognized that the aggregate data conceal a wide variation among farm operators; extreme hardship is being experienced in many individual cases, particularly in 1977.

Another component of the economic well-being of the farm population is off-farm income. The real income of farm people from nonfarm sources continues to increase over time and accounts for an increasing proportion of the total income of the farm population (Table 32). Nonfarm income accounted for three-fifths of total income to the sector in 1976.

TABLE 32.—*Real income per farm and per capita disposable personal income of farm population as percent of nonfarm, 1961–76*

Period	Total income per farm (1967 dollars) [1]	Income from farming as percent of farm operators' total income	Per capita disposable personal income, farm population as percent of nonfarm population
1961–65 average	6,820	51.2	61.7
1966–70 average	8,852	45.9	72.0
1971	9,078	41.3	74.7
1972	10,669	46.4	83.4
1973	14,176	55.8	109.3
1974	12,951	51.2	92.4
1975	10,889	42.2	88.0
1976	11,178	41.4	81.4

[1] Net farm income excluding inventory change plus off-farm income of farm households, deflated by the consumer price index.

Sources: Department of Agriculture and Department of Labor.

Income estimates per farm provide a rough measure of the relative economic well-being of farm households compared with their nonfarm counterparts (Table 32). The comparison is not completely apt, however, because of differences in the cost of living and in the number of persons per household, as well as differences in amenities between farm and nonfarm living. Although the per capita disposable income of farm households has long been below that of nonfarm households, there has been a slow but steady convergence of incomes in farming to those of the rest of the work force. In 1973 income of farm households actually reached and temporarily exceeded that of nonfarm households, but since then the ratio of farm to nonfarm incomes has fallen sharply.

Because they are so numerous, agricultural producers are "price takers," and are especially vulnerable to the adverse impacts of uneven rates of change in prices. During a period of inflation led by food prices, producers

initially benefit from large runups in prices of raw farm products, but the increased earnings are generally capitalized into land prices. The owners of such assets enjoy a gain in real wealth, but total rates of return fall back to historical levels. Moreover the return of more nearly balanced supply and demand conditions brings commodity prices down again, and farm incomes fall, while debt incurred during the boom remains.

INSTABILITY OF PRICES AND INCOMES

The average annual export volume of U.S. agricultural products for 1971–76 was one and one-half times greater than the annual average for the 1960s. Average export earnings in the same period reflected a nearly threefold increase over the annual average for a decade earlier. This increased access to world markets has been beneficial not only to agriculture but also to the Nation's economy. The increased export earnings have contributed to a more favorable trade balance, helping to offset the large external deficit. However, this increasing reliance on foreign markets poses new problems for U.S. farmers and consumers as well as for the domestic economy more generally.

Markets for agricultural products have long been subject to variability in domestic production and consumption. In recent years, however, they have become increasingly vulnerable to the random fluctuations of weather throughout the world and to changes in consumption or in the policies of other trading nations. Moreover, many nations attempt to insulate their internal food prices from world supply and demand fluctuations. To the extent that they are successful, a disproportionate share of the short-run

TABLE 33.—*Trends and variability in real national income components, 1961–77* [1]

Component	1961–70		1971–77	
	Average annual change	Index of variability	Average annual change	Index of variability
	Percent			
National income	4.5	3.4	2.0	3.6
Compensation of employees	5.2	1.8	2.1	3.1
Nonfarm proprietors' income	1.6	5.3	−1.7	5.6
Rental income of persons	.4	6.9	−4.1	4.5
Corporate profits	2.4	16.0	1.5	12.8
Net interest	10.3	2.8	8.0	3.2
Farm income:				
With Government payments	−.7	7.4	−4.4	29.4
Without Government payments	−2.9	8.5	−1.0	34.7
Per capita personal income:				
Total population	3.5	1.6	1.6	2.4
Farm population	6.1	3.3	1.8	13.6
From farm sources	3.4	4.5	−1.3	25.0

[1] These estimates were calculated from regressions of the natural logarithms of the various deflated components of national income on a linear time trend. The deflator was the consumer price index. The average annual change refers to the coefficients of time and the index of variability refers to the standard errors of the regressions. Data for 1977 are preliminary.

Source: Council of Economic Advisers, based on data from Department of Agriculture, Department of Commerce, and Department of Labor.

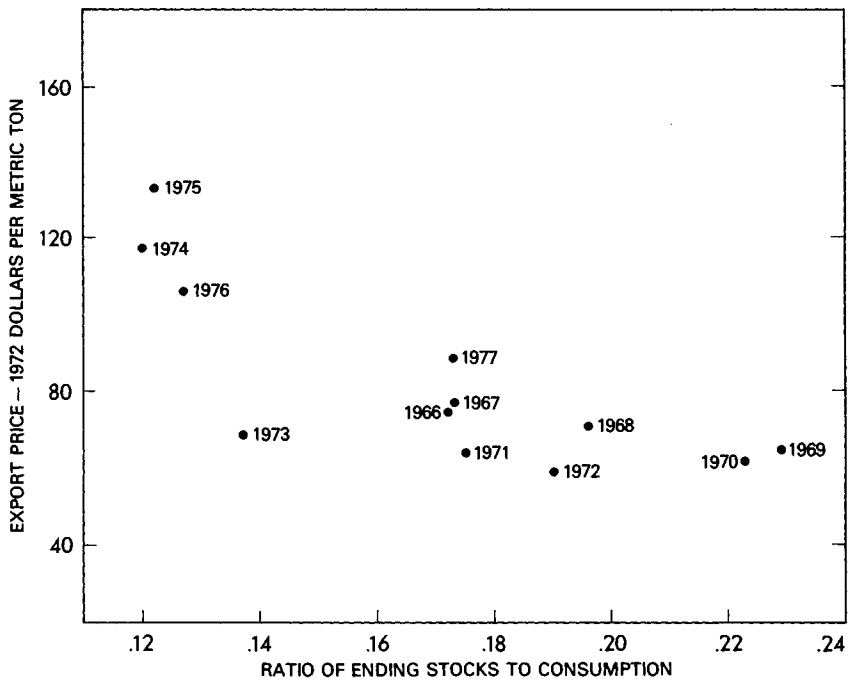
adjustment to changing market conditions is forced upon market-oriented countries such as the United States and on developing countries with food deficits.

These sources of instability are reflected in the increased variability of farm income in recent years. Variability in farm income during the 1970s was about four times greater than in the 1960s (Table 33). In fact, during 1971–76 income from farming was by far the most volatile of the major components of national income. This increased variability is also manifested in the per capita incomes of the farm population. Although the variability is considerably reduced when one includes income of the farm population from nonfarm sources, the total is still much more volatile than the per capita income for the population as a whole. On the other hand, the average rate of growth of per capita farm income from all sources has outpaced the growth of per capita personal income during both periods.

Instability in agricultural product prices has a significant impact on the entire domestic economy. Sharply increasing prices of raw farm products

Chart 15

World Wheat and Coarse Grains: Export Prices and Ratio of Stocks to Consumption



NOTE: DATA RELATE TO MARKETING YEAR ENDING IN YEAR SHOWN AND EXCLUDE THE U.S.S.R.
SOURCE: DEPARTMENT OF AGRICULTURE.

soon lead to increases in food prices that affect all consumers—but most severely those near the bottom of the income distribution.

The instability of food prices was clear during the last few years, when low worldwide stocks of grain and poor harvests led to sharp increases in domestic food prices. From 1972 to 1976 the ratio of world stocks to world consumption, excluding the U.S.S.R., fell from 19 percent to the 12- to 14-percent range. Prices more than doubled (Chart 15). World stocks were increasing by 1977 as the second consecutive large global crop was harvested.

World stocks of grain will have to increase along with continued growth of world population and income to provide a cushion against another food crisis. The stocks-consumption ratio in 1977 was at a level of 17 percent. A third successive large crop for the world would result in a ratio in the more comfortable 18- to 20-percent range, and an average crop would provide some buildup in stocks. On the other hand, a very poor world crop, which has about a 1 in 12 probability of occurring, or two consecutive moderately poor crops, could again reduce the ratio of ending stocks to consumption to the 13- to 14-percent range and cause sharp price increases. The recent large fluctuations demonstrate the importance of developing ample world food reserves.

PRICE AND INCOME MEASURES

It is generally recognized that farm commodity programs through the years have impaired economic efficiency by regulations preventing the production, resource use, pricing, and trade that could flow from unbuffered markets. Once inaugurated, programs have seldom achieved the intended result; and it has often been politically difficult to reform or terminate them, even when their economic inefficiencies are recognized.

From their beginnings and for three decades afterward, farm programs tended to be inflexible, restrictive, oriented toward individual commodities, and poorly adapted to prevailing market conditions. Beginning in the mid-sixties, some reform was introduced, and the 1977 legislation continued this recent trend in agricultural and food legislation. It is a further step in the process of bringing policies and programs in closer accord with the economic realities of a modern farm sector operating in a worldwide context.

The most heavily used policy tool for improving farm income has been market price support for individual commodities. This has been accomplished primarily through Commodity Credit Corporation (CCC) nonrecourse loans under which the commodity is pledged as collateral. Historically the support level, known as the loan rate, was generally inflexible and pegged to "parity" prices. Because of rapid technological change in farming, parity and therefore support prices were generally above market-clearing levels, encouraging uneconomic output, discouraging consumption, and thereby aggravating the surplus problem. This situation, in turn, gen-

erated political pressures from the farm sector to curtail output. Quotas, allotments, and other measures for production control were then applied to individual commodities. With no coordination across commodities, supply-demand imbalances soon arose in other commodities.

Because of slow but significant changes in farming, these policies became increasingly inappropriate. It became uneconomic for a major exporting country to strengthen farm income by high support prices because the demand for U.S. exports was more price sensitive than domestic consumption. With inflexible U.S. price supports above market-clearing levels, competitors could gain an increasing share of the world market, and as a consequence the United States became the residual supplier in world markets. In addition to the economic losses of inefficient resource allocation, the large transfer payments to the farm sector had become burdensome, and political pressures to reduce the transfers became greater.

The first steps toward reform—to make farm programs more responsive to market conditions—were taken in the mid-sixties. As a supplement to the CCC price support loans, small "price support payments" were also provided for certain commodities produced under allotments or quotas. This represented the first move toward divorcing price support from income support and toward the use of different measures to attain these dual goals.

More significant changes in the traditional tools were later effected. The individual commodity approach to production control was discarded in favor of restraining production capacity generally. Price support eligibility was contingent only upon producers' idling a specified proportion of their cropland. Except for quota crops (rice, sugar, peanuts, tobacco, and extra long staple cotton), producers were free to plant whatever they wished on the remaining acres.

Farm program subsidies have traditionally been based on volume of production. As a result the relatively few large producers with greater volume tended to receive a greater share of total program benefits than the more numerous smaller farmers. To the extent that this occurred, the programs implicitly contributed to a widening disparity of income distribution in agriculture. Partly in recognition of this fact, a $55,000 limit on the amount of payments which a producer could receive under the major commodity programs was imposed for the first time in 1971.

Legislation in 1973 continued the movement toward fewer program restrictions and greater reliance on market signals to guide producers' decision making. An important step was taken in the Agriculture and Consumer Protection Act of 1973 when, by including a target price-deficiency payment system, income support was fully separated from price support. Following the concept first proposed in the late 1940s as the Brannan Plan, income transfers were provided to producers in addition to the price support loans. These income transfers vary inversely with the market price. No payments are made if the market price is at or above the target price; but if the market price is below the target price, support payments are based upon

the differential. The payment limitation was reduced to $20,000 in the 1973 act.

Economic conditions after 1972, when increased world demand caused prices to be well above the price and income support levels, allowed the commodity programs legislated in the 1973 act to be essentially inoperative. No production restrictions on the major commodities were employed during 1974–77. However, as U.S. and world stocks returned to more normal levels, prices declined and there were growing political pressures in this country for increased government price and income support.

POLICY DEVELOPMENTS IN 1977

When the Carter Administration took office in 1977, it faced the reemerging farm income problem, the potential instability problem, and the expiration of major legislation affecting agriculture and food. In addition, other policy proposals—including establishment of grain reserves and examination of the organization and funding for agricultural research—were advanced. The challenge thus facing the new Administration was to work with the Congress in developing legislation that would meet the incomes objective but reduce economic efficiency as little as possible. For the first time in over a decade, the Administration authored a comprehensive food and agricultural bill and presented it for consideration by the Congress. The congressional action resulted in passage of the omnibus Food and Agricultural Act of 1977 (Public Law 95–113).

The 1977 act further modifies and extends the available policy tools—providing for flexible price-support levels, increased reliance on direct income support, abolition of allotments, and a managed grain reserve.

Price Support

The act contains price supports at levels that afford price protection to farmers, yet are low enough not to interfere with markets except in years of excessive stocks. The price support programs therefore provide an interim financing arrangement whereby producers may even out their cash flow but eventually return their products to the market. One important change in the act, included largely in recognition of the increased importance of world markets, is downward flexibility in the support prices for the major commodities. Whenever season average prices are within 5 percent of the loan level and the price support interferes with the competitiveness of U.S. products in world markets, the loan level may be reduced by amounts up to 10 percent per year (with absolute minimum loan levels specified).

Income Support

Divorcing price support from income support in farm commodity programs allows income distribution objectives to be pursued with less economic distortion than if price supports alone are used as a means of bolstering farm income. If minimal supports do not interfere substantially with the functioning of the market, then production and use may be largely unaf-

fected. In this case the only noteworthy cost of the programs to society would be direct income transfers.

Parity, the long-used concept for determining needed income support for agriculture, was discarded for the major crops in the 1973 act because technical flaws—failure to account for productivity changes is a major one—made it inappropriate for modern conditions. Instead, the 1973 act adopted a "cost of production" concept for target price escalation. Lack of adequate cost data at that time forced the use of a broad-based index of prices for agricultural inputs, but individual commodity cost estimates have been developed in the intervening years.

The 1977 act completed the move to cost of production, using individual commodity cost as the basis for the target prices. However, just as with parity, this approach also has serious limitations. One is that the average cost of production is not a measure of equilibrium price, since it reflects only supply and not product demand conditions. Further, an inherent potential for an artificial target price spiral exists in the cost of production approach if fixed asset (primarily land) costs are included. Producers earning high returns at a given target price level will bid up the price of land. Since the land price increase is reflected in the cost of production, the target prices are raised accordingly, and the spiral continues. The 1977 act bases the initial (1978) target prices on a proportion of total cost. Adjustment of the target prices in the next 3 years will reflect only variable, machinery, and overhead costs—the land and management components are excluded—thus largely avoiding the price spiral problem.

Acreage Allotments

As has been noted, prior to the 1977 act the criterion for determining the compliance required of producers and for disbursing benefits was the acreage allotment. In principle the allotments reflected each producer's historical share of national production of the crop, the shares being assigned on the basis of production patterns prevailing in a particular historical period, which for some crops was as long as 25 years ago. The rights to produce and market the crops became valuable assets, in effect representing a financial grant from government to the owner merely because in the past a particular crop happened to have been grown on the farm. Program benefits over the years were thus largely capitalized into land values. Because payments were conditioned on existing use patterns, these acreage allotments impeded a rapid geographic shift in production patterns. During the 1974–76 period, when the allotment system lay fallow, production shifted significantly to those farms and regions of the country where the particular crops could be produced most efficiently.

During development of the 1977 act, the Administration proposed abolishing the antiquated allotment system. Compliance and benefits based on the old allotment system would have been inequitable and would have drastically lessened the efficiency of the programs in achieving their objec-

tives. Overall economic losses would have been substantial if farmers had returned to the old production patterns in order to receive program benefits, rather than planting those crops that they could produce most efficiently.

The Congress adopted the Administration's proposal to abolish allotments and base the programs upon a "current plantings" concept. Under this approach, farmers can make decisions regarding current year production on the basis of costs and anticipated market prices. Any compliance requirement (such as the acreage set-asides for the 1978 wheat and feed grain crops) and price and income support are then based on decisions that are reflected in current year plantings. While still not a perfect program tool, the current plantings concept offers hope of avoiding rigidities in production patterns, and in the associated losses of economic efficiency, and it removes much of the inequity of the allotment system.

The concept may, however, create a new source of resource misallocation if producers respond to the target prices in those years when they are substantially above market prices. Basing income support on current plantings could lead to production distortions, an uneconomic product mix, rapidly increasing support levels, and a need for stringent production controls to avoid unacceptably large Treasury outlays for the support programs. The 1977 act thus improves the efficiency of farm programs but does not fully resolve the fundamental dilemma: how to provide income protection to farmers in a way that is equitable yet does not lead to uneconomic production decisions.

Stabilization Measures—Domestic Grain Reserves

The establishment of a domestic grain reserve began to receive serious consideration soon after the 1972–73 experience with sudden shortages. Numerous proposals for reserves entailing various forms, sizes, and operating rules had been advanced, but support for reserve schemes was mixed. Farmers who associated the large government-held stocks of past years with low commodity prices were at first opposed; but as grain prices continued to decline, the opposition from many gradually diminished. Consumer advocates, on the other hand, remembering the post-1972 increases in food prices, generally favored a reserve system.

The Administration announced in April the formation of a small food grain reserve of 8 million metric tons of wheat and rice from the 1976–77 crop. The 1977 act then mandated such a reserve specifying minimum and maximum quantities and also authorized a feed grain reserve. In late August the Administration announced its intentions to enlarge the reserve to 30 to 35 million metric tons of food and feed grains.

This reserve system is to be owned and held to a large extent by farmers. Rules for its operation are explicit, thus precluding stock releases not motivated by economic considerations. A set of release prices has been established and grain enters the reserve at the loan level. The government will share the cost of holding the reserve.

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The reserve of 30 to 35 million metric tons has three major components: 9 million metric tons of wheat and rice; 17 to 19 million metric tons of feed grains; and an international emergency wheat reserve of 6 million metric tons. The exact size of the reserve within the range given will depend upon the amount of grain acquired by CCC through the nonrecourse loan program. The first two components, totaling 26 to 28 million metric tons (the producer-held portion of the reserve), are being established through extended loans by the CCC. Upon expiration of the regular price support loan, producers may enter into a contract with the government to hold the grain for 3 to 5 years. Storage payments are provided until the first price trigger (140 percent of the loan level for wheat and 125 percent for corn) is reached. If the second price release point (175 percent for wheat, 140 percent for corn) is reached, repayment of the loans may then be required.

The Administration is submitting proposed legislation to the Congress in 1978 to authorize establishment of the government-owned International Emergency Wheat Reserve of 6 million metric tons. The legislation stipulates that the reserve is to be used for humanitarian purposes in meeting contingency food needs or as part of any U.S. commitment to an international reserves scheme that may be negotiated.

A domestic grain reserve can be operated in accord with a price-support program. Stocks will be insulated from the market when prices are low and released back into the market when supplies are short. The planned reserve should: (1) provide a beneficial price effect to farmers when the reserve is established; (2) not "overhang" the market at low price levels as in past years by virtue of the contract release prices and CCC release prices; (3) provide buffer stock protection against severe market disruption; and (4) provide a reasonably wide price corridor—containing the long-run price comfortably away from either ceiling or floor—which allows price to perform its allocative function.

REGULATORY REFORM

In a mixed market economy like that of the United States, government regulations of the marketplace sometimes play a vital role in meeting social goals, curbing abuses, or mitigating the hardships that would flow from the unconstrained play of economic forces. *Economic regulatory programs,* for example, control entry of firms into particular lines of business, set prices they may charge, and sometimes specify the standards of service the firms can offer. Under certain circumstances the regulations can be useful in regulating natural monopolies or providing income support. *Social regulatory programs,* on the other hand, are designed to correct a variety of undesirable side effects in our economy that relate to safety, health, and the environment—effects that markets, left to themselves, often ignore. Whereas economic regulatory programs typically govern the conditions of doing business in one or more industries, social regulations frequently dictate some of the operating conditions required of a wide range of industries.

The scope of economic activity covered by Federal regulation has widened as programs have grown and the number of explicitly recognized social goals has increased. Today the economic significance of regulatory activities of the Federal Government approaches that of direct tax and expenditure decisions. But while detailed and critical attention is given to budgetary action, regulatory efforts are poorly coordinated with other economic or social objectives. Moreover difficulties in the design of many programs frustrate attempts to attain the very goals for which the programs were formed.

ECONOMIC REGULATION

Regulatory programs that govern entry and pricing in individual lines of business were primarily designed to supplement or replace market mechanisms. As new areas were observed where the market outcome was judged unsatisfactory, the scope of Federal economic regulation expanded. Major industries that are now regulated include agriculture, airline and surface transportation, banking, communications, and energy.

At the same time, growth of the economy and technological progress have eroded many former natural monopolies, converted infant industries into mature ones, and created conditions conducive to reliable competitive services. Though economic conditions in some industries may continue to require some degree of regulation, rapid changes in others suggest that a greater role for market forces may be desirable.

Current Problems

An important reason for reexamining the rationale for economic regulation is that, in many industries, the rules are ill suited to present economic conditions. In some instances early goals that prompted regulatory action have been rendered obsolete by new economic conditions, but the regulations that promoted those early goals continue in force. In other cases the original goals were contradictory and at least one of them has been abandoned. Pursuit of almost all the goals has required that a growing number of activities be subject to regulation.

The history of airline regulation illustrates the growth of a regulatory structure from origins bearing little resemblance to current institutions. Federal regulation of passenger fares under the Air Mail Act of 1934 was introduced chiefly to prevent airlines from lowering passenger fares and receiving larger subsidy payments for airmail carriage. Economic regulations mandated by this act were expanded under later legislation that still governs the airline industry, despite the fact that airmail charges provide minimal subsidies to airlines and constitute a very small proportion of total airline revenues.

Surface transportation demonstrates how pursuit of a goal has expanded the scope of regulation. Early regulation of railroads had the dual aim of providing services at fair prices and stabilizing railroad profits.

When oil pipelines, trucks, and water traffic threatened the solvency of railroads, these competitors were made subject to regulation in an attempt to maintain the railroads' profitability. Today all these, and intercity bus transportation as well, are regulated.

The continuation of regulation in markets that would otherwise be competitive has only deflected competition, not prevented it. In the airline industry, for example, service competition—particularly frequency of service but also such in-flight amenities as food, drinks, leather seats, and movies—has replaced the price competition that regulation preempted.

The prohibition on the payment of interest on demand deposits has induced individuals and businesses to limit the amount of funds held in this form. From the standpoint of society as a whole, this is an unproductive activity. It has also spawned the development of new business practices (some of which are discussed in Chapter 1) that are imperfect substitutes for interest-bearing demand deposits. These include telephone transfer systems that allow funds held for transactions purposes to be kept in interest-bearing deposits until the last possible moment, and the introduction of interest-bearing negotiable orders of withdrawal, or NOW, accounts, usable in virtually the same ways as checking accounts, by both banks and nonbank financial institutions in a number of states. The prohibition on interest payments on demand deposits has, therefore, largely been circumvented in indirect ways that are often inefficient.

Continued regulation has also imposed costs by delaying the introduction of new technology and services. Examples include the slow rate at which cable TV and railroad-truck piggybacking services have been introduced, the slow rate of expansion of radio services in particular markets because of licensing requirements, and the years of delay in the Civil Aeronautics Board's (CAB) approval of low-fare international standby service.

Movement away from regulation in any industry imposes costs on some who were previously protected. For example, though expanded competition in the trucking industry may increase economic efficiency and bring lower prices, it also would impose capital losses on truckers who purchased operating certificates from other truckers.

Administration Effort

The problems inherent in the present regulatory structure, the uncertainties posed by the complexities of many of the regulated industries, and the importance of avoiding unnecessary hardships prompted the Administration to take an active role in 1977 in promoting regulatory reforms to improve the present system.

The Administration strongly supported domestic airline reform initiatives, currently before the Congress, that promise a smooth transition to a less regulated environment. At the center of the initiatives is relaxation of controls over entry and pricing, although control of entry would be phased

out over several years to allow existing firms to adjust. In the unlikely event that a community would lose service entirely under the new regulations, a transitional subsidy for such service could be provided.

Increased competition in the domestic airlines industry should benefit consumers by a lowering of fares similar to the dramatic declines in international air fares. The Civil Aeronautics Board and foreign governments have authorized a much wider range of services that involve fewer amenities before and during flights in exchange for appreciably lower fares. These actions have made foreign travel available to many people who were formerly unable to afford it. For example, the lowest available individual fare from New York to London was $350. Under newly authorized standby plans, the same trip can be made for $236, about two-thirds of the former cost. At home the results of easing entry in the intrastate airline markets in Texas and California have shown that significantly lower prices can be obtained without service disruptions.

The Administration also proposed changes rationalizing regulatory programs governing agriculture and energy, as discussed earlier in this chapter. Allowing expanded competition in other regulated industries where there are no significant scale economies, or where the original rationale for regulation no longer prevails, should offer similar consumer benefits and help to control inflation. The Administration has begun to examine intensively the current regulatory controls over the motor carrier industry, and other economic regulatory programs are slated for future study.

SOCIAL REGULATION

Social regulation of the market place has arisen in response to pervasive problems that have affected nearly all Americans at work and at home. In 1976 one of every 11 workers in private industry suffered from an accident or illness related to the job; 4,500 workers lost their lives from such causes. The Bureau of Labor Statistics estimated that over 39 million workdays were lost in the private sector in 1976 because of nonfatal occupational illness or accidents; and in the mining and construction trades, workers on the average lost more than one workday per year because of accidents and illness occasioned by the job. Because of the uncertain links between occupational hazards and illness, data that are readily available may well understate the problems.

Environmental problems are even more pervasive. Air pollution, produced by numerous industrial processes and the operation of transportation vehicles, has been clearly linked to many different illnesses. Adverse water quality has also proved to be dangerous. A recent study made by the Environmental Protection Agency (EPA) found the water of 80 cities to contain chemicals that are known to cause cancer in animals. To these known problems must be added the rapid growth in the use of pesticides and possibly toxic chemicals, which continues to outstrip current knowledge about their long-run effects.

Markets do not respond well to these problems, primarily because only a very small fraction of any benefits from abatement efforts accrues to those who produce side effects—air or water pollution, for example. Incentives to take actions or collect information leading to environmental or safety improvements are therefore lacking. Until more positive steps are taken, environmental, safety, or health risks will be needlessly high.

If society wishes to mitigate this situation, government actions are required. The government has focused on many of the problems for only a very short time. Although the Food and Drug Administration was formed in 1931, and pesticides have been regulated since 1910, the Environmental Protection Agency (EPA) was formed in 1970, the Occupational Safety and Health Administration (OSHA) in 1970, and the Consumer Product Safety Commission (CPSC) in 1972. In addition, many of the substantive laws that these agencies administer have been in effect only as long as the agencies, or for an even shorter time.

Despite their newness these regulatory programs are likely to expand with our growing knowledge of the social problems involved, as has happened with the older social regulatory programs. One example of this growth can be seen in Federal pesticide regulation, which was begun to protect farmers from fraudulent claims by salesmen. In 1947 Congress passed the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) to meet new concern about direct poisoning by requiring the registration of such products. FIFRA was amended in 1967 and 1972 after the discovery of environmental dangers in DDT and other pesticides that were developed in the 1940s and 1950s. The new amendments provided new authority to license users of pesticides.

The same growing awareness of problems and expanded scope of programs have occurred in many other areas. As production techniques and products have become more complex, society has demanded protection against whatever hazards to health, safety, and the environment may accompany the benefits from the changes.

During the short time since their inception the social regulations have improved the conditions affecting the environment, health, and safety of Americans. For example, while the Nation's efforts to control water pollution are behind schedule and face some difficult problems, numerous bodies of water have been demonstrably improved. Because of mandated municipal and industrial waste treatment, aquatic life and recreational amenities have reappeared, and foul odors and visibly dirty water have disappeared in a number of the Nation's waterways.

Similarly marked progress has been achieved in reducing air pollution. Data collected by EPA and the Council on Environmental Quality (CEQ) at 280 locations around the country show significant improvements in ambient air quality between 1970 and 1976. The number of these locations that failed to meet national ambient air quality standards for sulfur

dioxide fell by 27 percent, for carbon monoxide levels by 20 percent, and for particulates by 12 percent. Nevertheless in all areas progress is often slower than expected because the social regulatory process has difficulty keeping pace with the rapidly expanding number of products and processes that pose possible hazards to society.

The social regulatory programs have produced clear benefits to society in the short time they have existed. But their costs have also been substantial—larger than were originally anticipated. The national interest requires not only that we achieve the goals of social regulation, but that we do so at minimum cost. Two broad sets of factors are important in determining the cost of our social regulations: the level of our ultimate goals and the pace at which we try to achieve them; and the design of the regulatory mechanism.

The Pace of Regulation

The level at which society sets its goals is an important factor in determining the cost of achieving those goals. Over the next few years, however, costs will be largely determined by the *pace* at which we pursue our goals. There is a major tradeoff to be faced between the pace at which the goals are attained and the costs of their attainment. Ideally we should set the pace of moving toward our objectives at the point where any step-up would add more to costs than to the social benefits. In practice we have only limited and imprecise information on the benefits of many social programs, although we know considerably more about how changes in pace affect costs. In many cases more rapid implementation is quite costly. For example, the Council on Wage and Price Stability studied the water pollution effluent guidelines for the iron and steel industry, proposed by EPA in 1976. It found that a relaxation of the 1977 standard for water pollution control in this industry with no change in the more stringent 1983 standard would permit savings in capital costs of $200 million. We cannot measure the dollar value of the gains from earlier achievement and compare them with those costs. But in making regulatory decisions on the speed of attaining standards, we should explicitly make a qualitative judgment about whether the gains from earlier attainment are worth the costs.

The pace at which regulatory goals must be met may also indirectly affect costs. Deadlines that are excessively short, combined with detailed prescriptions of technological solutions, can discourage firms from searching for less well-proved but ultimately more efficient approaches. Alterations in initial technological solutions become costly and meet with resistance. On the other hand, regulatory authorities must cope with the natural inclination of those who are regulated to overemphasize the costs entailed in rapid progress toward meeting the standards. No mechanical formula can guide decisions in this area. A constant awareness of the relation between pace and costs in decisions about individual cases should nevertheless help to reduce the overall costs of regulation.

The Design of the Regulations

The degree of detail with which regulations are specified is one of the most important elements affecting costs. Excessively detailed and inflexible specifications can increase costs by making it impossible for producers to adopt the least expensive route to meet regulatory goals. The study by the Council on Wage and Price Stability of the proposed guidelines to reduce effluents in the iron and steel industry, for example, found that the incremental costs the 1983 standard imposed for removing one unit of pollutant differed widely for each of a number of processes in a single plant. One process for making integrated seamless piping and tubing required annual incremental expenditures of $18,000 to remove the last ton of total suspended solids; in hot forming processes with scarfing, the last ton to be removed had an incremental annual cost of only $2,000. Applying the guidelines throughout the plant instead of process by process would allow pollution reductions to be concentrated on processes having lower incremental abatement costs. The same level of abatement could thus be reached at much lower costs.

A difficult problem of regulatory design concerns the extent to which old and new sources of pollution should be governed by different standards. Some differentials are appropriate, since the incremental costs of meeting a given standard for emissions tend to be lower when the necessary measures are being incorporated in new rather than old facilities. But regulations can inadvertently add to the economic costs of an industry by applying excessively large differentials to new processes compared with existing ones. If the differential is too large, firms deciding between continuing production in older facilities or converting to new ones may be biased against the new ones. Since investment in new and expanded facilities strongly affects the rate at which productivity grows, overly large differences in standards can slow productivity gains and raise costs.

Costs can also be appreciably affected by whether the regulatory agency adopts technical or performance standards. A technical standard specifies the equipment or process that producers must adopt, such as a particular engineering approach to reduce coke oven emissions or a specific treatment to remove industrial wastes from discharged water. A performance standard sets the expected outcome—in terms of such things as allowable emissions or quality of discharges—but leaves the choice of method up to the firm. Technical standards give producers little flexibility or incentive to search for less costly approaches; instead they must rely on the technological decisions of the regulatory agency. Performance standards provide greater freedom for firms to serve their own interest in increasing their profits by finding less costly approaches. The efficacy of performance standards, however, is sometimes limited by shortcomings in monitoring techniques. Such standards are only feasible if performance can be monitored with reasonable reliability and costs.

Regulations and Incentives

Running through the earlier discussion of regulatory design was the theme of flexibility. To the extent that firms can satisfy requirements by meeting environmental, health, and safety standards—the choice of techniques being left to them—the national costs of regulation will tend to be reduced, since each firm wishes to reduce its own costs.

An even broader application of this concept lies in the use of market incentives as a substitute for or supplement to particular regulatory structures. Regulations are commands to firms and individuals from government, enforced by civil or in some cases criminal penalties, to undertake particular actions: meeting a specific performance or technical standard related to environment, health, or safety by a particular date. An alternative approach would modify the monetary incentives of the market place to give each firm an interest in achieving specified standards. Various incentives can be considered: a fee system that imposed a charge on each pound of pollutant discharge or on the rate of injuries to workers in industrial plants, for example, or government auctioning of permits to emit a fixed quantity of pollutants within a locality or along a river.

Basically, market incentives impose prices upon unwanted outcomes. Firms find that creating such outcomes is costly and will seek ways to reduce them. In the process, decisions on how to correct unwanted side effects and the pace of corrections are decentralized.

Both the advantages and the problems associated with various incentive-oriented approaches have been extensively discussed elsewhere. For many reasons these approaches are now used only to a very limited extent. Our Nation has approached the problems of environment, health, and safety chiefly through reliance on detailed regulation. A body of law and precedent has thus been established, and administrative mechanisms created on the basis of this approach.

The advantages of incentive-oriented approaches seem in this light to lie in supplementing and gradually modifying the regulatory approach, rather than seeking a wholesale substitution of one system for the other. An example of a supplemental use of the incentive-oriented approach is the structure of penalties for violating the automobile fuel efficiency standards. These penalties follow the principle that the size of the fine should correspond to the costs imposed on society when a firm violates a standard. In this case, the fine on fuel-inefficient automobiles is related to the social costs of the extra gasoline that will be required to operate them.

New Directions in Social Regulation

The Administration is now exploring ways to achieve a better mix of economic and regulatory incentives in several different areas.

In occupational health and safety, the Administration has formed an interagency task force to search for better means of achieving goals of the

Occupational Safety and Health Act. The task force has been asked to examine the use of economic incentives, particularly to promote worker safety. The interagency Resource Conservation Committee is currently studying the feasibility and desirability of mandatory deposits on beverage containers to reduce litter. It also is investigating whether fee systems could cut down the amount of solid waste.

The major use of economic incentives in our current regulatory framework is to enforce standards set by legislative or regulatory bodies. Incentives take the form of fines or penalties for violations of regulations. The most effective are those in which the size of the fine and the frequency of inspection are such that firms will comply before the inspector arrives.

The present penalty structures do not always have this result. Fines for violations of air and water quality standards have generally been small compared with the costs that the violations impose on society. Under these conditions the penalties can serve their purpose only with frequent enforcement. Yet the number of inspectors cannot keep pace with the growth in the regulations. With generally low penalties and infrequent monitoring, regulatory agencies have turned to such drastic remedies as threatening plant or mine shutdowns to enforce the rules.

Use of penalty fees based on levels of emissions could supplement the present arsenal of enforcement techniques and at the same time improve the efficiency of the regulatory system. For example, properly designed fees would make processes and commodities entailing severe pollution or serious hazards more expensive, discouraging their use relative to cleaner or safer processes. They would also encourage rather than stifle the discovery of more effective technologies for curbing socially undesirable side effects. Equally important, fees allow firms more flexibility to plan for the future in a way that threats of more drastic action do not.

The potential advantages of fees in inducing compliance with regulations suggest that they should receive greater attention by policy makers than they have done in the past. Administration efforts last year in this direction included a proposed noncompliance fee for industrial point sources. The current standards of the Federal Water Pollution Control Act are based on the installation of discharge-reducing equipment, but the incentives to maintain that equipment in working order are weak. A noncompliance fee, on the other hand, based on the amount by which actual discharges exceed allowed amounts, would give firms a strong inducement to operate the machinery properly. In a similar effort, the Administration initiated a study of economic incentives to control nitrogen oxides as provided for in the 1977 amendments to the Clean Air Act.

Review and Evaluation of the Regulatory Process

The economic effects of social regulations have rapidly grown more important during recent years, as their number and scope have increased. Regulatory decisions not only determine the speed at which the Nation

advances toward important achievements in environmental protection, health, and safety; they also substantially affect costs of production, patterns of investment, flows of capital, and locational decisions. Indeed, as noted earlier, the effects of these decisions on the economy now merit as much notice as the effects of Federal budgetary decisions.

Improving Federal performance in the regulatory area to minimize the various costs of achieving our social goals requires improvements in the design and structure of regulations as well as in the way they are arrived at and evaluated. The first necessity is a careful analysis and review of the economic issues in the individual regulations, especially the cost-effectiveness of various alternatives. Second, a system must be developed through which the total effect of regulations on social objectives and on the economy can be brought together and assessed.

To improve the economic analysis and review of individual regulations, the Administration has instituted a program that will allow the President's advisers to review the consequences to the economy of major proposed regulations. The program requires the preparation of a Regulatory Analysis (RA) for each major regulatory proposal. A review group will examine a limited number of such analyses each year to ensure that full attention is given to all feasible alternatives before a regulation is issued. Peer review of the regulatory agencies' decisions should improve the effectiveness and economic efficiency of the final regulations.

It is not enough, however, to deal solely with individual regulations. Regulatory requirements from different agencies have sometimes conflicted with each other, and particular industries, firms, or communities are confronted with a series of regulatory requirements imposed by different Federal agencies. No one of these may pose serious problems, but taken together they may have serious economic consequences: increasing costs or requiring large capital outlays in a short time. There is now no mechanism to assess these combined effects and take them into account in regulatory decisions. On a larger scale, there is no institutional framework within the Federal Government—analogous to the budget for Federal spending programs—in which the total costs of regulations are brought together, to permit the evaluation of economic impacts, setting of priorities, and the like.

Several steps are planned or already being taken to develop a careful and appropriate means of reviewing the comprehensive effects of the regulatory process. Last year the heads of the four regulatory agencies concerned with toxic chemicals—the Environmental Protection Agency, the Occupational Safety and Health Administration, the Food and Drug Administration, and the Consumer Product Safety Commission—formed working groups that meet regularly to seek a consistent approach to regulation. Early this year the President will issue an Executive Order that directs Federal regulatory agencies twice a year to give public notice of the major planned regulations. Members of the public and senior government officials will thus

be able to make orderly preparations for participating in the development and analysis of the proposed regulations.

Finally, the President has directed his advisers to explore means by which the overall effects of Federal regulations can be regularly reviewed and judged within the executive branch. Particular attention must be paid to availability of data and to the legal and institutional characteristics of regulatory programs. In view of the importance of regulatory programs, however, improving the Government's ability to understand both their economic and their social effects is a crucial need.

TAX REDUCTION AND REFORM

The Administration's tax proposals are designed to aid continued economic recovery and achieve important tax reforms. The tax relief that these proposals provide is tied closely to the tax reform elements of the package. In general the reform measures increase the amount of income subject to taxation by eliminating various forms of deductions and exclusions. The attendant tax increases are more than offset by lower tax rates. The net result for calendar year 1979 will be a reduction in Federal tax liabilities of about $25 billion. Individual tax liabilities will decline by $16.8 billion, the net effect of $23.5 billion of gross tax reductions and $6.7 billion of revenue-raising reform. Business tax reforms are expected to raise revenues by $2.6 billion. These reforms are offset by cuts in the corporate income tax and liberalization of the investment tax credit worth $8.3 billion, thus providing a net corporate tax cut of $5.7 billion. Special tax reductions of over $2.0 billion are proposed on excise taxes for telephone services and Federal unemployment insurance taxes in order to reduce prices for consumers and costs for businesses. Chapter 2 contains a discussion of the fiscal policy issues associated with these tax reductions.

MAJOR INDIVIDUAL INCOME TAX CHANGES

The most fundamental change proposed in the individual income tax is the replacement of the $750 personal exemption and the general tax credit with a single per capita tax credit of $240. This change is accompanied by an across-the-board reduction in tax rates. The new system of personal credits will replace the current confusing combination of a personal exemption and a credit of $35 per dependent or 2 percent of the first $9,000 of taxable income and thus simplify tax returns. Moreover, since the tax rate reduction is proportionately larger in low- and middle-income brackets, progressivity of the tax system will be increased. The system of personal credits also alters the way taxes change with family size. Unlike the current deductions for exemptions, under which families in high brackets gain more from an additional dependent than those in low brackets, the new credit will provide the same benefit for an additional dependent at all income levels.

For a taxpayer with three dependents the personal credit will be worth $960 regardless of the income of the family.

Additional personal tax reductions may be enacted as part of the Administration's energy plan. Under the Administration's crude oil equalization tax (COET) proposal of April 1977, the net proceeds are rebated on a per capita basis to protect consumers' real incomes and to avoid a new source of restraint on economic activity. If the final energy bill allows only for a rebate in 1978—as provided in the House version—the Administration intends to send to Congress a supplemental message recommending that the proposed individual tax reduction be increased by the amount of the net proceeds of the COET.

The tax reform package restructures the system of itemized deductions. Deductions for medical care and casualty losses would be allowed only for extraordinary expenses—combined medical payments and uninsured casualty losses in excess of 10 percent of adjusted gross income. Medical and casualty expenditures should properly be deductible only when they are unusually large and have a significant impact on the taxpayer's ability to pay. The deductions for medical care were originally intended to meet this standard, but the changing relation between medical costs and income has resulted in the deductibilty of amounts that can no longer be considered extraordinary. Moreover, the current casualty loss provision is a form of costless coinsurance that particularly benefits taxpayers in high tax brackets. The new extraordinary expense provision will restore the law to its original intent and simplify tax computations for many middle-income taxpayers.

Itemized deductions for State and local sales, gasoline, and miscellaneous taxes are eliminated. Since these deductions are very closely related to income, a rate reduction may be substituted for them with very little equity loss. In any case, deductions for gasoline taxes are contrary to our energy goals.

Several reform proposals are directed toward reducing the use of tax shelters and eliminating other means by which high-income individuals avoid their fair share of tax. The minimum tax first enacted in 1969 will be strengthened. Under current law, many tax preferences are subject to the minimum tax of 15 percent, but preference income may be reduced by $10,000 or one-half of ordinary tax liability, whichever is greater, before the minimum tax is applied. The proposed elimination of the optional offset of one-half of ordinary tax liability will increase the ability of the minimum tax to reach sheltered incomes of high-income taxpayers. In addition, the preferential tax rate of 25 percent on the first $50,000 of capital gains will be abolished. Real estate depreciation practices will also be reformed by generally limiting depreciation deductions to straight line rather than accelerated methods. These and other related proposals will be directed toward broadening the provisions of the Tax Reform Act of 1976 that were intended to create a more equitable tax structure.

The Administration's tax package also introduces for the first time a provision for the taxation of unemployment insurance benefits received by high-income families. Unemployment benefits would be taxable for single individuals with total income, including unemployment insurance benefits, above $20,000 and for married couples with income above $25,000. For each dollar of income above the threshold, 50 cents of the taxpayer's unemployment compensation would be taxable. The current system provides an unwarranted tax advantage for high-income households in which one family member receives unemployment compensation. Since unemployment compensation is intended to replace lost earnings, it should be taxed in the same way as earnings. At the same time, the high threshold for taxation assures that benefits will not be taxed when a family's income is low.

MAJOR BUSINESS TAX CHANGES

As discussed in Chapter 2, the most important proposal designed specifically to aid businesses is the 4-percentage point reduction in the corporation tax rate. As an additional incentive for investment, the package also contains proposals to increase the limit on investment tax credits from 50 percent to 90 percent of tax liability and to extend the credit to industrial and utility structures as well as equipment. It is further proposed that the current 10-percent level be made permanent instead of reverting to 7 percent in 1981. These changes in the investment tax credit will reduce the cost of new investment and make future tax treatment less uncertain, thereby creating incentives for additional capital formation. Because investment in industrial structures has grown much more slowly than investment in equipment since 1973, the move toward equal treatment of structures and equipment should be particularly beneficial. As a means of promoting investment in urban areas, rehabilitation expenses for qualified structures will be eligible for the tax credit.

Business tax reforms include the repeal of business deductions for a large class of expenses, covering such items as yachts, club dues, tickets to the theater and sporting events, and the difference between first-class and coach airfare. The deduction for business meals would be reduced from 100 percent to 50 percent. In many cases these expenditures are a form of tax exempt compensation that provides little or no business benefit. Elimination of these deductions will be a highly visible improvement in tax equity and will ultimately improve overall economic efficiency.

Financial institutions now have a favored tax status that is greatly in need of revision. Deductions that commercial banks, mutual savings banks, and savings and loan associations are permitted to make for deposits into bad debt reserves are considerably higher than the amount necessary to cover actual losses; credit unions are totally exempt from income taxes. The proposed reforms will reduce excessive deductions for bad debt reserves and will tax credit unions in the same manner as mutual savings banks and savings and loan associations.

The tax reforms of international business include phasing out preferential tax treatment for domestic international sales corporations (DISCs) over a 3-year period and also gradually eliminating the deferral of taxes on profits of domestically controlled foreign corporations. A DISC is a subsidiary set up to receive export-related income; current law allows a DISC to defer tax on half its income. This tax preference—enacted in the waning days of the fixed exchange rate system in 1971—was originally intended to encourage increased exports. But since most of the benefits accrue to corporations that would export in any case, the small export benefits generated by DISCs are extremely costly. A recent Treasury study estimated that the tax preference for DISCs contributed only $1 billion to $3 billion to U.S. exports in 1974 at a cost of $1.2 billion. Such a special tax preference is particularly wasteful in a world with flexible exchange rates. Its overall effect on the trade balance will eventually be offset by induced exchange rate changes. The only lasting effect is an increase in production by industries that can take advantage of the DISC tax preference and a reduction in the output of all other industries.

Disallowing the deferral of taxes on income of U.S. controlled foreign corporations will equalize the tax treatment of domestic and overseas branches of U.S. businesses. It will allow the repeal of the complex legislation controlling tax havens and reduce the incentive to distort the allocation of profits between parent companies and their subsidiaries.

TAX TREATMENT OF MUNICIPAL BONDS

The Administration's tax package also proposes a fundamental change in the treatment of debt instruments issued by State and local governments. Under the taxable bond option State and local governments will be given the choice of issuing either taxable bonds that will receive an interest subsidy from the Federal Government or conventional tax exempt bonds. The subsidy rate on taxable interest, 35 percent in 1979 and 1980 and 40 percent thereafter, will lower the borrowing costs of State and local governments. Currently, issuers of tax exempt bonds pay 30 to 35 percent less interest than that on comparable taxable bonds. The taxable bond option will increase this difference to 40 percent in 1981. The larger difference between the yields of taxable and tax exempt bonds will reduce the value of this tax preference to wealthy holders of the tax exempt issues.

DISTRIBUTIONAL ASPECTS OF INCOME AND SOCIAL SECURITY TAX CHANGES

The tax reform package has been designed to improve the distribution of the individual income tax burden. The three major elements—the personal credit, the revised rate structure, and the reduction in itemized deductions—significantly increase the progressivity of the individual income tax structure. The effect of these three changes is illustrated in Table 34, which shows tax reductions for a family of four at several levels of adjusted gross income. Under current law, a four-person family claiming only the standard

TABLE 34.—*Income tax liability for one-earner four-person families*

[Dollars, except as noted]

Adjusted gross income	Present law tax [1]	Proposed tax [2]	Change in tax	Change in tax as percent of before-tax income
5,000	−300	−300	0	0
10,000	446	134	−312	−3.1
15,000	1,330	1,072	−258	−1.7
20,000	2,180	1,910	−270	−1.4
25,000	3,150	2,830	−320	−1.3
30,000	4,232	3,910	−322	−1.1
40,000	6,848	6,630	−218	−.5

[1] Assumes the greater of the standard deduction or deductible expenses equal to 23 percent of income.
[2] Assumes the greater of the standard deduction or deductible expenses equal to 20 percent of income.

Source: Department of the Treasury.

deduction begins paying income tax when its income rises above $7,200 per year. With the proposed changes, the same family would pay no tax if its yearly income was $9,256 or less. The greatest relative reductions occur in the low-income brackets. For a four-person family earning $10,000, income tax liability falls 70 percent from $446 to $134 a year. A family of four earning $15,000 annually would have its taxes cut from $1,330 to $1,072, or 19 percent.

Table 35 illustrates the combined effects that the tax reform package and the recently enacted changes in social security taxes will exert on aggregate tax liabilities by income class. The combined effect is progressive, as shown by the final column of the table. Taxpayers with expanded incomes below $20,000, who earn approximately 56 percent of income, will receive 77 percent of the net tax reduction. This calculation ignores the progressivity of

TABLE 35.—*Estimated tax changes resulting from tax reform proposals and social security amendments*

[Billions of dollars, except as noted]

Expanded income class (thousands of dollars)	Tax liability under current law: individual income taxes and social security taxes [1]		Individual and social security tax changes			Tax liability under proposed individual income tax and social security tax	
	Amount	Percent distribution	Total tax change	Tax reform	Social security [2]	Amount	Percent distribution
5	3.0	1.7	−0.3	−0.4	0.1	2.7	1.6
5–10	15.0	8.5	−1.5	−1.9	.3	13.5	8.0
10–15	27.5	15.5	−2.3	−2.7	.5	25.2	14.9
15–20	32.3	18.2	−2.3	−2.9	.5	30.0	17.7
20–30	42.1	23.7	−2.1	−3.2	1.1	40.0	23.7
30–50	25.3	14.3	−.5	−1.0	.6	24.8	14.7
50–100	17.4	9.8	.0	−.1	.2	17.5	10.3
100–200	8.3	4.7	.2	.2	.0	8.5	5.0
200 and over	6.5	3.7	.4	.4	.0	6.9	4.1
Total	177.4	100.0	−8.3	−11.7	3.3	169.1	100.0

[1] Employees' share of social security taxes calculated assuming former wage ceiling for 1979 ($18,900) and former tax rate (5.85 percent). Employers' share of social security tax not included.
[2] Employees' share calculated assuming current wage ceiling for 1979 ($22,900) and 1979 tax rate (6.13 percent). Employers' share of social security tax not included.

Note.—Calculations based on 1976 levels of income and 1979 tax law.

Source: Department of the Treasury.

social security benefits and the income distribution effect of business tax changes. At least as important as this gain in progressivity, however, is the progress toward other goals that the Administration's tax program will help to achieve: tax reform, tax simplification, solvency for the social security system, stimulation of aggregate demand, incentives for investment, and maintenance of the economic expansion.

INCOME MAINTENANCE

The publicly financed income maintenance system in the United States is composed of two essential elements: social insurance programs that provide partial replacement of earnings lost because of retirement, disability, or temporary unemployment; and public assistance, or welfare, programs for those unable to earn their own living—that is, the aged, the blind, the permanently disabled, and dependent children whose parents are unable to support them. The social insurance programs—principally social security and unemployment compensation—are financed on a pay-as-you-go basis with earmarked payroll taxes. While these programs are not funded on strictly actuarial principles and certain of their benefits have the characteristics of public assistance, they have traditionally been viewed by the public as insurance systems. Apart from limitations on earnings, recipients are not subjected to an income test as a condition of payment, and benefits are generally considered to be an earned right and carry no stigma of public charity. Public assistance programs, on the other hand, are financed out of general revenues. The benefits are income-tested and hence generally available only to the low-income population.

Total expenditures for income maintenance have risen from about 4 percent of GNP in 1940 to nearly 10 percent in fiscal 1977. The social insurance programs account for about three-fourths of this total, and social security is by far the largest single program. The Federal Government finances nearly all the expenditures for social insurance and about two-thirds of those for public assistance.

Two important changes in the income maintenance system were enacted during 1977. The Food and Agriculture Act of 1977 made certain structural modifications to the food stamp program, and the Social Security Amendments of 1977 assured the continued financial viability of the social security system. In addition, the Administration proposed a major new initiative—the Program for Better Jobs and Income—to consolidate and rationalize the several disparate components of the welfare system.

THE FEDERAL WELFARE SYSTEM

The principal public assistance programs created by the Social Security Act of 1935 were aid to families with dependent children, aid to the blind, and old age assistance. Since then, these programs have been expanded and new ones have been enacted. Following is a brief summary of the major Federal welfare programs in existence today (Table 36).

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TABLE 36.—*Government income maintenance programs*

Program	Date enacted	Form of aid	Source of funds	Fiscal year 1977	
				Benefit payments (billions of dollars)	Beneficiaries (millions)
Social insurance:					
Old age and survivors insurance	1935	Cash	Federal	71.3	28.5
Medicare	1965	In-kind	Federal	20.8	[1]25.4
Unemployment insurance	1935	Cash	Federal-State	14.3	9.8
Disability insurance	1956	Cash	Federal	11.1	4.7
Workmen's compensation	1908	Cash	Federal-State	6.7	2.6
Veterans' compensation	1917	Cash	Federal	5.7	3.5
Railroad retirement	1937	Cash	Federal	3.8	1.0
Black lung	1969	Cash	Federal	1.0	.5
Public assistance:					
Medicaid	1965	In-kind	Federal-State	16.3	21.6
Aid to families with dependent children	1935	Cash	Federal-State	9.8	11.2
Supplemental security income	1972	Cash	Federal-State	6.2	4.3
Food stamp program	1964	In-kind	Federal	5.0	17.1
Child nutrition	1946	In-kind	Federal	3.5	28.0
Veterans' pensions	1933	Cash	Federal	3.1	3.4
Housing assistance	1937	In-kind	Federal	3.0	7.1
Basic opportunity grants	1972	Cash	Federal	1.4	2.0
General assistance	[2]	Cash	State	1.3	.9
Earned income tax credit	1975	Cash	Federal	1.3	6.3

[1] Eligible to receive benefits as of July 1, 1977.
[2] Varies by State.

Sources: Department of Agriculture, Department of Health, Education, and Welfare, Department of Housing and Urban Development, Department of Labor, Department of the Treasury, and Office of Management and Budget.

Aid to Families with Dependent Children

Aid to families with dependent children (AFDC) is a joint Federal-State program that provides cash assistance to families with children under 18 years of age needing support because of the death, prolonged absence, or incapacity of one or both parents. At the States' option, and provided certain conditions are met, assistance may also be made available to families where both parents are present but the father is unemployed (AFDC–UF). As of 1977, 26 States and the District of Columbia operated such programs; the total number of participating families averaged about 170,000 per month during fiscal 1977. AFDC payment standards for basic needs are determined separately by each State; in July 1977 the largest payments for a family of four ranged from $720 a year in Mississippi to $6,396 in Hawaii. Benefits are reduced by 67 cents for each dollar of monthly earnings over $30 and after liberal deductions for work expenses. Certain recipients of AFDC are required to register with the work incentive (WIN) program and must accept suitable offers of employment or training. The Federal Government finances about 54 percent of total AFDC expenditures; the remainder is paid for by the States and a few localities.

Supplemental Security Income

Supplemental security income (SSI) is a Federal program that furnishes cash assistance to the aged, blind, and disabled. SSI was created in 1972 to replace the existing joint Federal-State programs providing assistance to

these groups. Basic annual SSI payments are about $2,100 for an individual and about $3,200 for a couple; benefits are reduced by 50 cents for each dollar of earnings in excess of $65 a month. The basic SSI benefit is uniform across the country and entirely paid for by the Federal Government; many States, however, continue to provide supplementary support to SSI recipients.

Food Stamps

The food stamp program provides the needy with a monthly allotment of coupons that can be used only to purchase food. This program is the only form of public assistance that is universally available to all low-income individuals, regardless of their family or employment status. The maximum allotment of food stamps for a family of four with no other income was $2,088 in 1977, and this is reduced by 30 cents for each dollar of net income received. With certain exceptions, able-bodied adult recipients of food stamps are required to register for work and must accept suitable offers of employment. The Federal Government bears the entire cost of food stamp benefits and shares administrative expenses with the States.

Medicaid

Medicaid is a Federal-State program that provides free medical services to the low-income population. Individuals are categorically eligible for medicaid benefits if they also participate in AFDC or SSI—or, in States with programs for the "medically indigent," if they meet an income test. In States without programs for the medically indigent, once individuals become ineligible for public assistance, they also lose all medical benefits. Benefits vary significantly among the States, ranging from an estimated average in 1975 of $334 per family in Mississippi to $1,824 in New York. The Federal share of medicaid payments is always at least 50 percent but may be substantially higher in States with low per capita income.

Housing Assistance

A variety of Federal programs provide housing assistance to low-income families, including low-rent public housing, interest rate subsidies for home ownership, and rental subsidies. The newest and most active program was created in 1974 by an amendment to the Housing Act of 1937 (section 8). This program provides subsidies to families who occupy new or existing rental units, and whose incomes are less than 80 percent of the median income for the area at the time of application. Of the families that meet the income test, those that belong to specified categorical groups or meet certain other criteria actually participate in the program. About 8 percent of the families potentially eligible in 1976 on the basis of their incomes were estimated to have received section 8 assistance. In general, participating families pay 25 percent of their gross income in rent to eligible landlords, and the Federal Government makes up the difference between this amount and the

local area "fair market rent," as established by the Department of Housing and Urban Development. Because of large geographic differentials in housing costs, section 8 subsidies vary significantly among the States and may reach several thousand dollars in some areas.

Earned Income Tax Credit

The earned income tax credit (EITC) was enacted by the Tax Reduction Act of 1975, principally to ease the burden of rising payroll taxes on low-income taxpayers. The EITC is available only to families with at least one dependent child or a disabled adult claimed as an exemption. The credit is equal to 10 percent of the first $4,000 of earnings, and it is reduced by 10 percent of the difference between total income and $4,000. Hence the EITC reaches a maximum of $400, and it phases out completely for those with incomes above $8,000. If the amount of the credit exceeds total tax liabilities, the difference is refunded to the eligible family, provided it files a tax return.

PROBLEMS WITH THE PRESENT WELFARE SYSTEM

Adequacy

Some critics of the welfare system contend that it provides inadequate support, while others believe it is too generous. The official poverty income level was defined by the U.S. Census Bureau to average $5,815 for a nonfarm family of four in 1976. Though this concept suffers from certain difficulties in definition and measurement, it is the most widely accepted indicator of minimum income adequacy in the United States. According to estimates of the Congressional Budget Office, some 21.4 million families would have had incomes below the poverty level in fiscal 1976 if no income transfer programs had been in existence (Table 37). If cash benefits of both the social insurance and the public assistance programs are added to other sources of income, the number of families with incomes below the poverty level is reduced by about 50 percent to 10.7 million. If in-kind transfers (for example, food stamps, medicaid, housing assistance) are also counted as income and taxes are netted out, the decline in the number of poor families is even more striking. Under this comprehensive definition of income, 6.6 million families remained below the poverty line in 1976.

Inclusion of in-kind benefits in the measure of income is controversial and almost certainly overstates the value of such transfers to recipients. Recipients have been found to value cash more highly than in-kind benefits because it affords relatively greater freedom of choice in the disposition of their income. Medical benefits are a particularly controversial item because of the difficulties in allocating them to the low-income population and because their inclusion seems to imply that the more illness people suffer, the better off they are. Nevertheless, those who are entitled to receive free medical assistance are undoubtedly made better off as a result, and it would be inappropriate to ignore such benefits in a comprehensive measure of

TABLE 37.—*Families below the poverty level before and after the effects of income maintenance programs and taxes, fiscal year 1976* [1]

Kind of family	Families below the poverty level, based on income					
	Before taxes and before transfers	Before taxes and after cash transfers [2]	Before taxes and after cash and in-kind transfers [3]		After taxes and after cash and in-kind transfers [4]	
			Excluding medical benefits	Including medical benefits	Excluding medical benefits	Including medical benefits
All families:						
Number (millions)	21.4	10.7	9.0	6.4	9.2	6.6
Percent of all families	27.0	13.5	11.3	8.1	11.5	8.3
Single-person families:						
Number (millions)	10.3	5.4	5.0	3.5	5.1	3.7
Percent of single-person families	47.8	25.0	23.2	16.4	23.8	17.0
Multiple-person families:						
Number (millions)	11.1	5.3	4.0	2.9	4.0	2.9
Percent of multiple-person families	19.2	9.2	6.9	5.0	7.0	5.1

[1] Data based on 1975 Current Population Survey, with adjustments to reflect underreporting of income and changes in the characteristics of the population between the survey year (calendar year 1974) and fiscal year 1976.
[2] Cash transfers include payments under government-financed social insurance and public assistance programs.
[3] In-kind transfers include food stamps, child nutrition assistance, housing assistance, medicare, and medicaid.
[4] Taxes include Federal personal income and employee payroll taxes and State income taxes.

Source: Congressional Budget Office.

income. Table 37 presents changes in the number of families below the poverty level when medical benefits are included in income and when they are not. Exclusion of medicaid and medicare increased the total number of families below the poverty line in 1976 by an estimated 2.6 million.

On balance, regardless of whether in-kind transfers are included in income, the present income maintenance system significantly improves the distribution of income that would otherwise exist. Nevertheless, further progress is still necessary before poverty in the United States is completely eradicated.

Equity

Even among those who consider benefit levels to be adequate, it is generally agreed that a serious fault of the present welfare system is the different treatment it accords to people with similar needs. Benefit levels vary widely among States and among different demographic and family groups. Geographic differentials arise primarily because benefits under the two major public assistance programs—AFDC and medicaid—are essentially controlled by the States. As a result, sharp disparities in benefit levels exist between the poorer, rural States and the wealthier, more urban areas. These differences are mitigated somewhat by the existence of the Federal food stamp

program, which adds substantially to AFDC benefit levels in low-income States. Nevertheless, Table 38 shows that in 1976 a single-parent family of four with no earnings could obtain combined welfare benefits in New York City that were more than 2½ times larger than those available to the same family in Mississippi. This disparity is much greater than can be explained by regional differentials in the cost-of-living. Such disparities in the distribution of benefits are inequitable in and of themselves and create incentives for migration from low-benefit to high-benefit States.

The variety of public assistance programs and the ways in which they categorize recipients also result in differential treatment of families and demographic groups. Since AFDC payments are restricted to families in which the father is absent (or, in 26 States, unemployed), the income of a two-parent family of four, with one parent working full time at the minimum wage, was

TABLE 38.—*Comparison of public assistance benefit levels with alternative income standards, family of four, 1976*

Item	Level (dollars)
Median four-person family income	17,315
Bureau of Labor Statistics low-income budget	10,040
New York City family with AFDC, food stamps, medicaid	8,302
Illinois family with AFDC, food stamps, medicaid	6,412
Family earning full-time minimum wage, plus food stamps and earned income tax credit	5,958
Official poverty line	5,815
Texas family with AFDC, food stamps, medicaid	4,174
Mississippi family with AFDC, food stamps, medicaid	2,914
Two-parent family with food stamps only (all States)	1,992

Note.—Data relate generally to mid-1976.

Sources: Department of Commerce, Department of Health, Education, and Welfare, and Department of Labor.

only slightly above the poverty level in 1976, even after supplementation through food stamps and the EITC. In contrast, in many States a mother with three children can receive welfare benefits that are well above the poverty line (Table 38). Moreover, if the two-parent family of four has no earnings and resides in a State without an AFDC–UF program, it is eligible only for food stamps, unless the father should desert the family. Needless to say, such disparities are highly inequitable, discourage work effort, and create incentives for disintegration of families.

The welfare system also discriminates against childless couples and single individuals who are not aged. Federal income support for these groups is limited to food stamps worth a maximum of $624 per year per individual. Hence, the level of public assistance for many poor people is clearly inadequate. Finally, access to certain in-kind programs is restricted by categorical eligibility requirements (medicaid) or by limited supplies (section 8 housing

allowances and day care), and inequities therefore arise. Since the cash value of in-kind assistance can amount to several thousand dollars, the resulting differences in benefits can be very large.

Work Incentives

The current welfare system discourages work in several ways. First, inadequate employment and training opportunities for the poor severely limit their chances to enter the work force and become fully productive members of society. Second, as already noted, in many States earnings from a minimum wage job plus food stamps amount to less than the welfare benefits available to a family of equal size where no one works. Third, both the medicaid and AFDC programs have severe "notches," creating situations where a small increase in earnings can cause recipients to lose their benefits entirely and thus to be worse off as a result of their extra work. Finally, since all the welfare programs are income tested, an extra dollar of earnings (after deductions for work-related expenses) yields less than a dollar of net income. This loss in benefits per dollar of additional earnings is called the benefit reduction rate, or marginal tax rate, and the higher this rate is, the smaller the reward for working. No single program has a benefit reduction rate on earned income that exceeds 70 percent. But for poor people who participate in more than one program, the benefit reduction rates of all the programs cumulate to yield a much higher total rate. In addition, workers must pay social security taxes on the first dollar of earnings, and eventually Federal (and perhaps State) income taxes as well. The net result in some cases can be marginal tax rates that exceed 100 percent, so that disincentives to work are strong.

Administrative Inefficiency and Complexity

The welfare system is both inefficient and exceedingly complex. Administrative expenses account for large portions of the total budgets for the various programs, and error rates are high. Because the system is slow to respond to the needs of recipients, they become frustrated and their rates of participation may decline as a result. In addition, administration of the welfare system is split among several units of government, and the programs operate with a variety of different benefit structures, accounting periods, filing unit definitions, and work requirements.

Fiscal Burdens

The Federal Government currently pays about two-thirds of total welfare costs, the remainder being spread over State and local governments, principally in the AFDC and medicaid programs. However, a small number of States and localities (mainly in the North and Northeast) bear a heavy share of this burden, a development that has contributed to their precarious budgetary situations. The variation in benefit levels that exists has also encouraged migration of poor people to areas where the payments are highest.

This in turn has led to a further deterioration of the financial condition of these governmental units. Of course, these differences in welfare expenditures implicitly reflect the particular preferences of States and localities regarding the level of income support they wish to provide. Nevertheless, if a system of income maintenance for the poor is viewed as a truly national responsibility, the burden of supporting it should be equitably distributed among the States on the basis of ability to pay.

Policy Control and Responsiveness

As noted above, control over the income maintenance system is fragmented and many low-income persons do not receive satisfactory coverage. As a result, the Nation does not have a tool to deal with the effects of other national policies on the distribution of income. For example, the proposed tax on crude oil contained in the National Energy Plan would, by raising prices of energy, have a significant impact on real incomes of the poor. Yet there exists no simple and efficient mechanism to neutralize these adverse effects. While little thought has been given to this shortcoming in our income security system, it may be the one that causes the most hardship to the poor.

CHANGES IN THE FOOD STAMP PROGRAM

The Administration proposed significant changes in the food stamp program as a first step toward reform and rationalization of the welfare system. The Congress adopted most of the proposals and extended the program for 4 years in the Food and Agriculture Act of 1977. The changes included in the 1977 act are generally designed to achieve a more efficient operation of the food stamp program, to permit more individuals who are genuinely poor to participate in the program, and to reduce the availability of food stamps to those with higher incomes. Eligibility for food stamps is defined more clearly in the 1977 act than previously, and participation is limited to those households whose income net of certain deductions is below the poverty level. In addition, the system of deductions used to arrive at net income is simplified. The most significant reform in the 1977 legislation was the elimination of the purchase requirement. This feature of the old program required recipients to pay cash for their food stamp allotments. The net benefit, or "bonus value," was the difference between the face value of the stamps and their purchase price. Under the new law, the basic allotment is simply equivalent to the bonus value. Because recipients no longer have to buy their food stamps, for a given total income, including food stamps, the amount of their disposable cash income will increase and the amount of coupons exchangeable only for food will decline.

THE PROGRAM FOR BETTER JOBS AND INCOME

The Administration's Program for Better Jobs and Income (PBJI) is a job-oriented proposal designed to replace the existing welfare system

with a comprehensive approach to income security for the low-income population. The new program would provide jobs and employment services for those who are able to work, income supplementation and strong work incentives for those who work but whose incomes are inadequate to support their families, and cash assistance for those who cannot work because of age, disability, or family circumstance. If enacted, the program would become fully operational in fiscal 1982. The major features of PBJI are described below.

Employment Opportunities

A central element of the proposed PBJI is to be an expanded effort to find jobs in the private and regular public sectors for low-income persons who are able to work. Prime sponsors under the Comprehensive Employment and Training Act (CETA), State employment service agencies, and community based organizations are expected to play important roles in assuring that a full array of employment and training services is made available to these individuals. When principal wage earners in low-income families with children cannot find regular employment, PBJI would provide up to 1.4 million full- and part-time special public service jobs and training slots. The new public service job program is carefully structured to avoid disruptive effects on the private economy. Applicants would be required to engage in an intensive 5-week search for regular employment before becoming eligible for a special public service job. The jobs themselves would be temporary and participants must continue to search for a regular job. To minimize adverse effects on private labor markets and ensure that jobs in the private sector are more attractive than the special public service jobs, the basic wage rate would be kept at or slightly above the minimum wage. Moreover, holders of these jobs would not be eligible for the earned income tax credit. Finally, it is intended that the job and training opportunities in this new program would provide useful skills and work experience to the participants, thus making them better able to obtain employment in the regular economy. Additional discussion of the public service employment component of PBJI is contained in Chapter 4 of this *Report*.

Cash Assistance and Work Incentives

SSI, food stamps, and the Federal share of AFDC would be consolidated into a single Federal system of cash assistance. The Federal benefit structure would be divided into two tiers: an upper tier for those not expected to work (i.e., the aged, blind, disabled, and single-parent families with children under 7 years), and a lower tier for those who are expected to work (two-parent families, single-parent families with older children, single individuals, and childless couples). Families in the second category could move to the upper tier if neither parent could find work after 8 weeks of search. If a job were

found but refused, the family would remain on the lower tier. Adults in single-parent families where the youngest child is between 7 and 13 years of age would be expected to work during school hours. They would initially receive the upper-tier benefit, but if they refused an appropriate part-time job they would receive the lower-tier benefit.

On the upper tier, the basic Federal benefit in 1978 dollars would be $2,500 for an aged, blind, or disabled individual, and $4,200 for both a single-parent family of four and a two-parent family of four, if after a period of intensive job search the family head was unable to find a regular job. The level of benefits for a family of four is approximately 65 percent of the projected poverty threshold in 1978; it exceeds the value of food stamps plus the Federal share of AFDC in all but one State. The four-person family on the upper tier would cease to be eligible for benefits when earned income reached $8,400. On the lower tier, the basic benefit would be $1,100 for a single individual and $2,300 for a two-parent family of four. Single individuals would become ineligible for cash assistance at incomes above $2,200, while working families of four would become ineligible at incomes above $8,400.

The two-tier benefit structure is designed to encourage work and ensure that the focus of aid to needy families is on employment, not welfare dependency. The minimum income guarantee on the lower tier provides strong incentives to work, while successful implementation of the employment aspects of the program would assure that the incomes of families in these categories need not remain at such low levels. Adults in families in the expected-to-work category would be given lower cash benefits if they do not work or if they refuse an appropriate job offer. Once a job is taken, the first $3,800 of earnings would be disregarded in calculating their Federal benefit; that is, recipients would face a zero marginal tax rate on those earnings. Thereafter benefits are reduced by no more than 50 cents for each additional dollar earned above $3,800, or by no more than 52 cents for each additional dollar in States that supplement the basic benefit level. For those who are not expected to work, there would be no earnings disregard, and benefit reduction rates could range from 50 percent to 70 percent, depending on the benefit reduction rates applied by States that supplement the Federal benefit. Single-parent families with young children would be permitted a special deduction to pay for child care.

In addition to the incentives built into the cash benefit structure, the earned income tax credit would be expanded to increase the rewards for working and to achieve better integration of the welfare system and the personal income tax structure. For a family of four, the existing 10-percent credit on earnings up to $4,000 would be supplemented by an additional 5-percent credit on earned income between $4,000 and $9,100, approximately the point at which such a family would become liable for Federal income taxes as a result of the proposed tax reform measures

discussed in this chapter. The credit would then decline by 10 percent of the excess of actual income over $9,100. Hence the new EITC would reach a maximum of about $650 and phase out entirely at an income of about $15,650 for a family of four. As already noted, those working in the special public service jobs would not be eligible for the EITC. This exclusion creates an incentive for holders of the special public service jobs to search for work in the private or regular public sector.

Existing eligibility criteria for medicaid are to be preserved temporarily by PBJI. While the medicaid notch would therefore remain as a disincentive to work, the forthcoming national health insurance proposals are expected to address this issue.

To summarize, the Program for Better Jobs and Income is designed to provide employment opportunities and strong incentives for those who can work, and adequate cash assistance to those who cannot find a job or are otherwise unable to work. Consolidation of the three public assistance programs into a uniform Federal system would improve administrative efficiency and create a structure where error and fraud are less likely. Federal income support would be extended for the first time to all needy two-parent families, single individuals, and childless couples, thereby eliminating a major inequity in the current system and reducing the incentives for families to separate. By instituting a Federal floor under the incomes of the poor, benefit disparities among the States would be substantially diminished. Finally, the provision of cash supplements would be fully integrated with employment and training programs.

State Supplementation and Fiscal Relief

While an important long-run objective of welfare reform is to create a uniform system of benefits, it cannot be achieved overnight. Raising all benefits to the levels in the high-benefit States would be too costly, and lowering all benefits to the levels in the low-benefit States would cause severe hardship. Hence there is a strong case for allowing States to supplement the basic Federal benefit. To provide fiscal relief for States and localities, while encouraging a more uniform national system, the Federal Government would share in the cost of supplementation. The new program provides that, under certain conditions, the Federal Government would pay 75 percent of the cost of supplementing the benefits of a family of four between $4,200 and $4,700, and 25 percent of the cost of supplementing from $4,700 to the poverty line. The conditions are that the supplements must employ the new Federal eligibility standards and that the benefit reduction rate after supplementation must not exceed 52 percent for those expected to work, and 70 percent for those not expected to work. Federal sharing in the cost of such matching supplements would help States maintain existing benefits, while encouraging them to move toward a structure that embodies the goals of the new Federal program.

It is estimated that State and local governments would realize savings of about $2 billion on their 1978 welfare expenditures if the Program for Better Jobs and Income were fully operative this year. The States that have traditionally had the highest welfare expenditures—California, Illinois, Massachusetts, Michigan, New York, and Pennsylvania—would realize savings of more than 20 percent on their outlays.

Distributional Implications

The three main components of PBJI—employment opportunities, cash assistance, and expansion of the EITC—would have different effects on the distribution of income. Because disparities in benefit levels among States and demographic groups would be reduced, over two-thirds of the cash assistance benefits would go to families with incomes below $5,000. The public service jobs and training programs would provide a higher fraction of benefits to families farther up the income distribution because these jobs are available to primary earners in families with children. Nonetheless about half of the wages paid to holders of special public service jobs would go to families with income under $5,000. The expansion of the earned income tax credit would provide benefits to families well up in the income distribution. In fact the maximum benefit for a family of four is reached when annual earnings are $9,100. The purpose of this component, however, is not to provide basic income support but to alleviate the burden of payroll taxes and generally improve work incentives for low- and middle-income families. It is estimated that all three components combined would reduce the number of families with incomes below the poverty line by about 1.6 million.

THE SOCIAL SECURITY SYSTEM

Four separate programs together comprise the social security system: old age and survivors insurance (OASI), disability insurance (DI), hospital insurance (HI), and supplementary medical insurance (SMI). OASI and DI are cash benefit programs that replace earnings lost because of retirement, disability, or death; HI and SMI, which are also known as medicare, provide payments for medical services to the elderly and to disabled workers. OASI, DI, and HI are financed by specific payroll taxes levied on employees, their employers, and the self-employed. For 1978 the combined social security tax rate (OASDHI rate) is 12.1 percent and is applied against earnings of covered workers up to a maximum of $17,700. About 90 percent of all wage and salary earners are currently covered by social security and therefore subject to mandatory payroll taxes. The major exceptions are Federal Government employees, about 25 percent of State and local government employees, and some employees of nonprofit institutions. Approximately 106 million workers contributed to the system in 1977 and

total OASDHI tax revenues were $93 billion. Participation in the SMI program is voluntary; benefits are financed partly through premiums paid by current beneficiaries and partly out of general revenues.

Benefits under the OASDI programs are calculated according to a procedure that takes into account the average lifetime earnings, age, and other characteristics of recipients. The benefit formula is progressive and produces proportionately smaller benefits as earnings rise. That is, while high-wage workers receive larger dollar benefits than low-wage workers, benefits as a percentage of preretirement earnings decline as a worker's average wage increases. For example, the "replacement rate" (first-year benefit as a percentage of earnings in the year before retirement) of a 65-year-old male retiree who has a dependent spouse, and always earned one-half the median wage for males, was 90 percent in 1977; the replacement rate for a similar retiree who always earned the maximum wage subject to social security taxes was only 50 percent. Benefits under the two medical insurance programs are not tied to earnings histories but provide reimbursement for medical expenses incurred. Table 39 shows the distribution of social security benefits and recipients among the four programs.

TABLE 39.—*Social security benefit payments and beneficiaries, 1977*

Program	Benefit payments (billions of dollars)[1]	Number of beneficiaries (millions)[2]
Total social security	103.2	([3])
Old age and survivors insurance (OASI)	71.3	28.5
Retired workers	46.9	17.6
Dependents and survivors	24.2	11.1
Other	.2	.2
Disability insurance (DI)	11.1	4.7
Medicare (HI and SMI)	20.8	25.4

[1] Benefits paid in fiscal year 1977.
[2] OASI and DI beneficiaries as of September 30, 1977. For medicare, entry represents number eligible to receive benefits as of July 1, 1977.
[3] Not applicable.

Source: Department of Health, Education, and Welfare.

The Social Security Financing Problem

In recent years, the OASDI trust funds have been faced with serious short- and long-run financial problems. Assets in these two trust funds as a percentage of annual outlays have fallen steadily from slightly over 100 percent in 1970 to 41 percent at the end of 1977. Moreover, since 1975 current expenditures have exceeded receipts, so that the level of assets has actually declined. It was estimated that without remedial action, DI trust fund assets would be exhausted by 1979 and assets in the OASI fund depleted by 1982 or 1983. Since benefits can only be paid out of the trust funds, depletion would have required new legislation to prevent OASDI recipients from receiving less than the full amount of benefits to which they were entitled.

Several factors explain the recent decline in OASDI trust fund balances. First, since 1972 the benefits for people already retired have been automatically indexed to changes in consumer prices and as a result have increased sharply and regularly because of the recent high rates of inflation. Second, because of high unemployment and the slow growth in real wages since 1973, payroll tax receipts have not grown as rapidly as benefit payments. Third, since the late 1960s the number of beneficiaries in the disability insurance program has consistently been higher than expected. Finally, an unintended consequence of the provision in the Social Security Amendments of 1972 that adjusts benefit schedules automatically for inflation has been to cause the initial benefits of newly retiring workers to rise somewhat more rapidly than wages. As a result, initial benefit levels grew by about 6 percent more than preretirement wages between 1973 and 1977.

Over the longer term the cash benefit programs were even more seriously underfinanced. Under the intermediate set of assumptions in the 1977 report of the Social Security Trustees, average OASDI expenditures over the next 75 years were estimated to exceed projected payroll taxes by an amount equivalent to about 8 percent of taxable earnings. This outcome would have required a tripling of current OASDI tax rates by the year 2050 to finance benefits provided under the old law.

Roughly half of the long-range deficit in the OASDI programs was due to the interaction between high rates of inflation and a technical flaw in the benefit formula under which future retirees received a double adjustment for cost-of-living increases. Benefits were first increased as higher prices produced higher lifetime earnings—and therefore higher benefits at retirement—and again as the formula used to compute benefits was also adjusted upward to account for inflation. As noted above, this double-indexing procedure was made automatic in 1972; it not only raised the level of new benefits faster than the growth in average wages, but caused the relation between future benefits and preretirement earnings to vary erratically, depending on the relative movements of wages and prices. Under plausible assumptions about projected rates of wage and price inflation, double-indexing would eventually have caused benefits to exceed preretirement wages for some workers.

The other half of the 75-year deficit was due to a combination of the future consequences of the short-run deficit, continued increases in the incidence of disability, and the sharp projected expansion of the retired population relative to the working population after the year 2010. Today there are about 19 persons aged 65 or over for every 100 persons aged 20 through 64. In 2030, under the trustees' assumptions, there will be about 34 persons aged 65 and over for every 100 persons aged 20 through 64. This dramatic change is a result of the combined effects of the decline in the fertility rate (the average number of births a woman can expect to have

over her lifetime) and the fact that those born during the post-World War II baby boom will begin retiring after 2010.

Social Security Amendments of 1977

The Social Security Amendments of 1977 were designed primarily to prevent the assets of OASDI trust funds from being depleted in the next few years and to eliminate most of the long-range deficit. Since the Congress has always believed that the social security system should be fully financed by earmarked payroll taxes, substantial increases in OASDHI taxes were necessary. The major features of the new legislation are outlined below.

While little could be done to offset the effects of the shifting age distribution of the population, the provision in the old law that double-indexed benefits for future retirees was corrected. Under the new law, the procedures that automatically adjust benefits of current and future retirees for inflation are separated, or "decoupled." This change has the effect of eliminating the extreme sensitivity of projected benefit levels to assumptions about inflation and real wage growth. The new system would stabilize initial benefit levels for a 65-year-old retiree who always earned the average wage at about 42 percent of earnings in the year prior to retirement, regardless of the behavior of wages and prices. As a result, the long-run deficit is cut by about one-half.

TABLE 40.—*Tax rates for social security trust funds, old and new laws, calendar years 1977–2011*

[Percent]

Calendar year	Prior law				Social Security Amendments of 1977			
	Total	OASI	DI	HI	Total	OASI	DI	HI
	Employer and employee, each							
1977	5.85	4.375	0.575	0.900	5.85	4.375	0.575	0.900
1978	6.05	4.350	.600	1.100	6.05	4.275	.775	1.000
1979–80	6.05	4.350	.600	1.100	6.13	4.330	.750	1.050
1981	6.30	4.300	.650	1.350	6.65	4.525	.825	1.300
1982–84	6.30	4.300	.650	1.350	6.70	4.575	.825	1.300
1985	6.30	4.300	.650	1.350	7.05	4.750	.950	1.350
1986–89	6.45	4.250	.700	1.500	7.15	4.750	.950	1.450
1990–2010	6.45	4.250	.700	1.500	7.65	5.100	1.100	1.450
2011 and after	7.45	5.100	.850	1.500	7.65	5.100	1.100	1.450
	Self-employed persons							
1977	7.90	6.185	0.815	0.900	7.90	6.185	0.815	0.900
1978	8.10	6.150	.850	1.100	8.10	6.010	1.090	1.000
1979–80	8.10	6.150	.850	1.100	8.10	6.010	1.040	1.050
1981	8.35	6.080	.920	1.350	9.30	6.7625	1.2375	1.300
1982–84	8.35	6.080	.920	1.350	9.35	6.8125	1.2375	1.300
1985	8.35	6.080	.920	1.350	9.90	7.125	1.425	1.350
1986–89	8.50	6.010	.990	1.500	10.00	7.125	1.425	1.450
1990–2010	8.50	6.010	.990	1.500	10.75	7.650	1.650	1.450
2011 and after	8.50	6.000	1.000	1.500	10.75	7.650	1.650	1.450

Source: Department of Health, Education, and Welfare.

To prevent the assets of the DI trust fund from being exhausted, the new law provides for a reallocation of current-law tax rates among the trust funds in 1978. To cover the deficits caused by demographic changes and the recent recession and inflation, social security tax rates on employers and employees are to be raised above those in the old law, beginning in 1979 (Table 40). In addition, beginning in 1981 the OASDI rate for the self-employed is to be adjusted to restore its original relationship of one and one-half times the OASDI rate for employees. Finally, the taxable wage base for employers, employees, and the self-employed is to be increased above the levels provided in the old law, beginning in 1979 (Table 41). The new legislation maintains the parity principle whereby employers and employees pay taxes on the same amount of earnings.

In 1981, under the new law, a worker with earnings at the taxable maximum of $29,700 would pay social security taxes of $1,975, while a worker earning the projected average wage in covered employment (about $12,000) would pay $797. Altogether the higher tax rates and wage bases are expected to yield $89 billion in new social security tax revenues in the 5 years between 1979 and 1983. As noted in Chapter 2, these increases are an important component of the fiscal restraint on the economy that may have to be offset by tax reductions if we are to achieve our long-term economic goals.

TABLE 41.—*Social security contribution and benefit base, old and new laws, calendar years 1977–83*

Calendar year	Contribution and benefit base [1]	
	Prior law	Social Security Amendments of 1977
1977	$16,500	$16,500
1978	17,700	17,700
1979	18,900	22,900
1980	20,400	25,900
1981	21,900	29,700
1982	23,700	32,100
1983	25,800	34,800

[1] After 1978 under the old law and after 1981 under the new law, based on path of wages projected in the Budget of the United States Government, Fiscal Year 1979.

Source: Department of Health, Education, and Welfare.

Several changes were also made in the OASDI benefit structure: an increase in the amount of earnings allowed to retirees aged 65 and over before their benefits are reduced; an increase in the bonus for postponing retirement beyond age 65; and a freezing of the regular minimum benefit for future beneficiaries at its January 1979 level. The bill also provides for a one-time $187-million payment to State and local governments in fiscal 1978 to help relieve the cost of their public assistance programs.

Some longer-term issues were not addressed by the 1977 legislation—for example, the differential treatment of one- and two-earner households

in the benefit structure and the interaction between the cash benefit programs and private retirement systems. But the Social Security Amendments of 1977 nonetheless did remove the threat that the cash benefit programs would actually run out of funds; they corrected an obvious flaw in the benefit computation formula; and they reduced the average deficit over the next 75 years from 8 percent to an estimated 1½ percent of payroll.

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