RECOVERY: HOW FAST AND HOW FAR?

September 17, 1975

CONGRESS OF THE UNITED STATES
Congressional Budget Office
Washington, D.C.

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PREFACE

Recovery: How Fast and How Far? is the second in a series of reports on the state of the economy that will be issued periodically by the Congressional Budget Office. In keeping with CBO's mandate to provide nonpartisan analysis of policy options, the report contains no recommendations. It was prepared by CBO's Fiscal Policy Division, under the direction of Frank de Leeuw, Cornelia Motheral, Alan Blinder, and Nancy Barrett.

Alice M. Rivlin
Director

September 17, 1975

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CHAPTER I

INTRODUCTION AND SUMMARY

The U.S. economy is beginning to recover from its longest and worst recession since the 1930s, but it is not at all clear that the recovery will be sustained enough to carry the economy up the long road to full employment. As of mid-September, these points about the recovery warrant particular emphasis:

- The economic signs point to rapid growth in production in the fall and winter.
- Renewed inflation, spurred by food and fuel prices, is likely to accompany the recovery.
- Rising food and fuel prices and tighter monetary policies may retard or even thwart the recovery after the initial rebound.
- Even if production and employment continue to rise after the initial rebound, the recession has been so deep that unemployment will remain high for some years.

Production and Employment. Optimism about the months immediately ahead is based on recent advances in business sales and new orders, coupled with rapid progress in reducing the inventories that piled up during the recession. Inventory liquidation is not yet over, but has progressed far enough for future advances in sales and orders to be translated into higher levels of production and employment. The decline in the unemployment rate to 8.4 percent in July and August may in fact be an early response to the improved sales and order picture.

Whether the expected strong improvement in production and employment continues beyond the next few months is uncertain. The current increase in consumer spending may prove to be a temporary response to the tax cuts and benefit increases enacted in 1975. Sustained economic growth will require continuing strength in several areas of demand--housing, domestic automobiles, other consumer goods, exports, capital goods, or government purchases.

Prices and Interest Rates. An especially worrisome aspect of the current economic situation is the danger of renewed inflation before the recovery gets a strong start. The rate of inflation, after

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slowing markedly early this year, has begun advancing again. The renewal of inflation is not a result of current pressures on capacity or labor shortages; excess capacity and unemployment remain high and wage increases have moderated from their high rates of mid-1974. Rather, the recent spurt in prices is due primarily to special food and fuel developments. Recent increases in interest rates have also contributed to rising costs.

Major uncertainties about food prices center on the extent of Soviet grain purchases and the size of grain crops here and in Europe. Uncertainties about the energy price situation center around the future of oil price controls and the size of any additional oil price rise by OPEC nations. If food and fuel price increases continue they will not only hurt consumers directly, but may trigger a new round of wage, cost, and price increases and retard or even abort the recovery itself.

Economic Projections

The projections of inflation and unemployment through the end of 1977 shown in Table I are based on these assumptions:

- a rise of 9 percent per year in food prices;
- no decontrol of "old" oil, removal of the $2.00 tariff on imported oil and a moderate price increase ($1.50 a barrel) by OPEC this fall;
- fiscal policy conforming to the first concurrent resolution on the budget; and
- money supply growth at less rapid rates than those of this spring, toward the targets of 5.0 to 7.5 percent per year announced by the chairman of the Federal Reserve Board.

Through early 1976, the Congressional Budget Office (CBO) projects a rapid rate of recovery from the bottom of the recession. Beginning in mid-1976, however, tighter monetary policies and the impact of higher prices are expected to retard the recovery. By the end of 1976, the projections indicate an unemployment rate in the 6.9 to 7.6 range--representing some 7 million unemployed persons--and an inflation rate of 6.0 to 7.5 percent. During 1977 the projections suggest slightly less inflation and little or no improvement for unemployment.

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TABLE I--PROJECTIONS OF INFLATION AND UNEMPLOYMENT, 1975-77

	General Price Index (GNP deflator)		Unemployment Rate (percent)
	Index 1958 = 100	Percent Change from a Year Ago	
1975:II (actual)	184	+9.9	8.9
1975:IV	189 - 191	6.0 - 8.0*	8.1 - 8.6
1976:IV	200 - 205	+6.0 - 7.5	6.9 - 7.6
1977:IV	210 - 220	+5.5 - 7.0	6.6 - 7.5

*Percent change for 1975:IV is change from 1975:II at an annual rate.

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Compared to the budget committees' estimates at the time of the first concurrent resolution, the current CBO projections are similar on unemployment and somewhat higher on inflation. Compared to its last projections on June 30, 1975, CBO has become slightly more optimistic on inflation, due to changes in the assumptions about oil prices, and also more optimistic on unemployment, due partly to the oil assumptions and partly to recent economic news.

Alternative Policies

Alternative economic policies would lead to different projected outcomes. Of the many possible combinations, CBO has analyzed an expansionary strategy of fiscal and monetary policies designed to speed the recovery and a contractionary strategy designed to limit federal deficits and reduce the rate of inflation. The projected effects of these alternative assumptions are summarized in Table 2.

The expansionary option consists of a federal spending increase of $10 billion and a tax cut of $15 billion (in addition to extension of the temporary tax cuts enacted in 1975) both effective at the beginning of 1976, plus enough monetary growth to prevent short-term interest rates from rising higher than in the basic projections. CBO's analysis suggests that this strategy would reduce the projected unemployment rate by about 0.7 of a percentage point below what it would otherwise be by late 1976 and by 1.1 percentage points, or about 1 million workers a year later. All three components of the package contribute to this reduction.

The cost of this strong recovery option in terms of additional inflation shows up gradually over a period of years. CBO has made estimates of the effect five years later, showing an inflation rate some 0.5 to 0.7 percentage points higher than it otherwise would be; that is, 5.5 or 5.7 percent if the rate would otherwise be 5 percent.

The contractionary strategy consists of allowing the temporary provisions of the Tax Reduction Act of 1975 to expire, federal spending $10 billion below the level specified in the first concurrent resolution, and a monetary growth rate low enough to keep short-term interest rates at the same levels as in the basic projections. The results of these policies, according to CBO's analysis, would be an unemployment rate of 0.6 percentage points higher than in the standard projection by the end of 1976 and 0.9 percentage points higher a year later. The gain in terms of reduced inflation would be an inflation rate 0.3 to 0.4 percent lower than it would otherwise be five years from now.

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TABLE 2--POLICY ALTERNATIVES: FISCAL AND MONETARY POLICIES

Expansionary Strategy

	Spending Component	Tax Component	Monetary Component	Three Components
EFFECT OF POLICY ON:				
Unemployment Rate (percentage points):				
1976:IV	-.4	-.3	-.1	-.7
1977:IV	-.4	-.4	-.3	-1.1
Annual Rate of Inflation (percent change, General Price Index):				
1976	0	-.1	0	0
1977	.2	.1	.1	.4
1980	.2	.2	.2	.5 to .7

(continued)

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TABLE 2 (continued)--POLICY ALTERNATIVES: FISCAL AND MONETARY POLICIES

Contractionary Strategy

	Spending Component	Tax Component	Monetary Component	Three Components
EFFECT OF POLICY ON:				
Unemployment Rate (percentage points):				
1976:IV	+.3	+.2	+.1	+.6
1977:IV	+.4	+.3	+.2	+.9
Annual Rate of Inflation (percent change, General Price Index):				
1976	0	0	0	0
1977	-.1	-.1	0	-.2
1980	-.2	-.1	-.1	-.3 to -.4

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Alternative energy policies could also cause significant changes in the economic outlook. One policy which would both contribute to inflation and retard the recovery is immediate decontrol of oil prices. The results of CBO's analysis of immediate decontrol appear in Table 3. They indicate that by the end of 1976, decontrol would add 1.5 percent to the general price level and 0.5 percentage points to the unemployment rate. By the end of 1977 the effects would have grown to 1.8 percent for the general price level and 0.6 for the unemployment rate.

TABLE 3--POLICY ALTERNATIVES: IMMEDIATE DECONTROL OF OIL PRICES

	1975:IV	1976:IV	1977:IV
EFFECT OF POLICY ON:			
Unemployment Rate (percentage points)	+.1	+.5	+.6
General Price Index (percent of GNP deflator)	+.5	+1.5	+1.8

While there are many reasons for uncertainty about the future strength of the recovery, there seems little doubt that the problems of high unemployment and high inflation will continue to be with us for some years ahead. The current unemployment rate is so high and increases in the working-age population so large that not even a combination of expansionary fiscal, monetary, and energy policies is likely to bring the unemployment rate close to its 1946-74 average of 4.7 percent during the next two years. And only a highly fortunate combination of crop developments, energy price movements, and wage-price response to economic slack could bring the overall inflation rate back to its 1946-74 average of 3.7 percent. The most likely outcome is for relief from the extraordinary unemployment rates of this spring but for continued coexistence of high unemployment and high inflation.

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CHAPTER II

THE ECONOMY IN 1975

The American economy is in double distress--suffering from deep recession and severe inflation at the same time. In recent months prospects for recovery from recession have brightened. In the immediate future, increases in production and reductions in unemployment seem highly probable. At the same time--and apparently coincidentally--the outlook for inflation has worsened. If the price increases of the last two or three months continue, hopes for a respite from inflation will be dashed, while recovery from recession may also be endangered.

Prices and Costs

After an encouraging slowdown of inflation during the first half of 1975, prices suddenly leaped up again at the beginning of the summer. The Consumer Price Index rose at a monthly rate of 0.8 percent in June and an additional 1.2 percent in July, bringing the annual inflation rate for those two months to 12 percent. The Wholesale Price Index rose at a distressing 13 percent annual rate during July and August.

The new surge of inflation is caused largely by increases in food and fuel prices. Excluding food and fuel the Wholesale Price Index rose at an annual rate of only 3 percent in July and August. Average wage increases have been moderate in recent months and the productivity gains that are typical of the early stages of a recovery are further reducing the effect of wage increases on total costs. If food and fuel prices continue to rise at their current rate, however, they are likely to push wage increases up and to trigger a new round of increases in costs and prices.

The prices of food and fuel have fluctuated wildly in recent years (see Chart I); thus history provides little basis for predicting whether the current upsurge is a one-shot phenomenon or the beginning of a new and dangerous round of inflation. The dramatic increases of 1973 and 1974 were a major cause of double-digit rates of general inflation in 1974, one of the big unexpected economic shocks of recent years. Largely unrelated to the current demand situation in the United States, such inflationary shocks at first added to inflation and then, by reducing the real incomes and wealth of most households, contributed to the subsequent recession.

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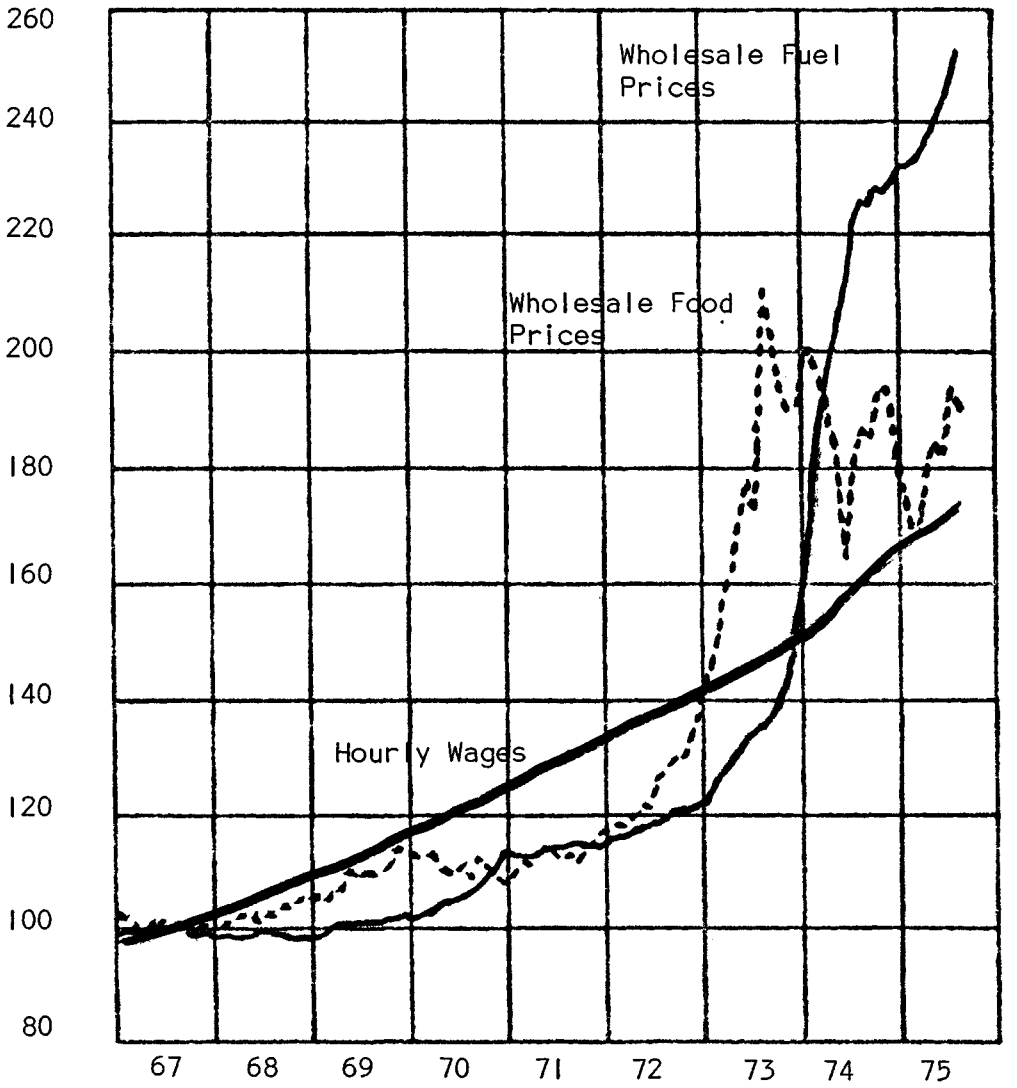
CHART 1--INDEXES OF FOOD PRICES, FUEL PRICES AND WAGES (1967 = 100)



Source: Bureau of Labor Statistics.

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Another cause of the inflation of the early 1970s, only partly related to domestic economic conditions, flowed from successive devaluations of the dollar in 1971-73. Still another upward force was the development of inflationary expectations, based on the gradual acceleration of prices during the 1960s. Once firmly held, these expectations played the role of a self-fulfilling prophecy in product, labor, and other market negotiations. Businesses and workers take into account future price rises they expect when they negotiate wage settlements; inflationary expectations also influence price setting, speculative buying of materials, and interest rates.

Early 1975: Inflation Receding

Early in 1975, almost as unexpectedly, the inflation outlook began to improve. The most dramatic evidence came from the "GNP deflator," a comprehensive index of prices of all final goods. This index, which had risen by more than 10 percent from 1973 to 1974, slowed to an annual rate of 8.4 percent in the first quarter and only 5.0 percent in the second quarter. These rates of increase still are well above the average rate for the entire span from 1946 to 1974 (3.7 percent per year), but they are far short of the double-digit increases of 1974.

The overall Wholesale Price Index actually declined from November to March. This was the result of two offsetting trends. Farm and food prices fell sharply, while the more important industrial component rose slightly. Within the industrial total, the fuel and power component rose no more than other industrial commodities. Thus food and fuel, two leaders in the 1973-74 inflation, were no longer adding to the rate of inflation in the early months of this year.

A slowing of wage rate increases also contributed to the lessening of inflationary pressure, although not as early as food and fuel prices. Hourly compensation in all nonfarm industries, after rising at an annual rate of more than 9 percent during 1974 and early 1975, slowed to an annual rate of 7.8 percent in the second quarter of this year. It might have been expected that unemployment rates in excess of 8 percent would have brought wage increases down to an even lower rate. Recent wage increases, however, have been barely sufficient to keep up with rising prices; and as long as there is general expectation of continuing inflation, significantly lower settlements in labor negotiations seem unlikely.

A final contributor to the slowdown of inflation was the resumption of growth in productivity in the second quarter as the recession reached its worst. This is typical of an early recovery period when businesses have more workers than they need, especially in supervisory and central office functions, and can expand output with less than proportionate increases in hours worked.

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Mid-1975: New Inflationary Pressures

At mid-summer considerable optimism about inflation seemed justified. Food and fuel prices were no longer escalating. Wage increases were slowing under the impact of high unemployment, and further productivity improvements could be expected as recovery proceeded. But optimism about the inflation situation ended abruptly with the release of the June Consumer Price Index in late July and the July Wholesale Price Index early in August. While one or two months' rates of change should not be taken as establishing a new trend, an examination of the sources of the recent increases does suggest a distinct danger of inflation ahead.

Once again, the most dramatic changes were in food and fuel prices. The food component of the Consumer Price Index rose by 1.5 percent from May to June and by 1.7 percent from June to July (seasonally adjusted), after a rise of only 0.5 percent in each of the previous two months and declines before that. Wholesale farm and food prices in August were 4 percent above June, after declining on balance over the previous six months. Wholesale fuel prices rose by more than 6 percent from May through August. Further increases can be expected if oil prices are decontrolled and if OPEC countries raise the price of imported oil.

Food Prices. A major factor in the rise in wholesale farm prices has been grain purchases by the Soviet Union in world markets. These have been estimated at 14 million to 15 million tons so far this year, and are expected to reach 25 million tons. Grain production in the Soviet Union is highly variable. Consequently in some years the Soviet Union buys very little grain in world markets and in other years considerable quantities. The impact of this variation on grain prices has increased since the depletion of stored grain stocks in this country.

In addition, adverse weather conditions in the western part of the U.S. corn belt and in Europe, are contributing significantly to higher prices.

None of these influences is responsible for this summer's increase in food prices at the retail level, as opposed to the farm and wholesale level. Recent increases in consumer food prices have been led by a sharp increase in meat prices, which in turn can be traced to high grain prices last fall. The chain of events began with poor weather last summer, a reduced harvest last fall, and high grain prices at that time. High grain prices mean high costs of producing livestock, which increases the price of meat, to some extent right away but largely after a time lag. As the influence of last year's poor harvest recedes, retail food prices may drop somewhat from current levels.

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Food prices, in short, are buffeted by complex and largely unpredictable influences. Recent inflationary influences have caused the Department of Agriculture to revise its estimate of the increase in 1975 consumer food prices from 6 percent over 1974 to 9 percent. Current developments in world grain markets probably will contribute to further rises in consumer food prices next year.

Fuel Prices. One factor pushing up the price of gasoline and other petroleum products has been the special import duty of $2.00 per barrel on crude oil imposed in two stages by the President on February 1 and June 1. In addition to raising the price of imported oil, these duties indirectly push up the price of producing the roughly 40 percent of domestic crude oil that is not subject to price controls. Eventually, each $1.00 of import duty would be expected to raise the price of about 60 percent of U.S. crude oil consumption (30 percent imported and 30 percent uncontrolled domestic) by a full dollar per forty-two gallon barrel, thus increasing the average acquisition costs of refiners by about $.014 per gallon. As of mid-September, however, it appears likely that the import duty will be removed.

Another price increase for OPEC oil looms on the horizon. Both the world oil market and the words of OPEC representatives have softened since the June 30 economic report of the Congressional Budget Office. The forecasts presented in Chapter III of this report assume an OPEC increase of $1.50 per barrel on October 1. This OPEC increase implies an increase of $.021 per gallon in the price of gasoline if controls remain in force. While many OPEC observers believe that $1.50 per barrel is the most likely posted increase, the OPEC nations have surprised the rest of the world before and may do so again. If there is an OPEC increase of $1.50, if the tariff is removed, and if oil price controls remain in force, CBO estimates moderate additional inflation in oil prices between now and early 1976 (by which time the full effect of the OPEC increase will have been felt), and comparatively little inflation from this source thereafter.

Immediate decontrol of old oil prices would change this picture dramatically. Immediate decontrol, if not offset by other policies, would add nearly 2 percent to the general price level and could retard or even abort recovery (as discussed in Chapter V).

Another commodity that may show a significant price rise over the next year is natural gas. Currently the Federal Power Commission (FPC) has set a ceiling on the price at which natural gas producers sell gas to interstate pipelines. The ceiling on natural gas prices appears to have caused a decline in reserves and has led recently to unavailability of supplies for some high-priority users of natural gas.

One solution which has been proposed is the deregulation of natural gas prices. In the long run deregulation would have a sizable

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effect on the price consumers pay for natural gas; but over a period of a few years the price effect would be considerably lessened by the fact that much gas is delivered under existing long-term contracts and hence would not rise in price. Over the next two or three years, the effects of deregulation of natural gas would be much less than those of immediate decontrol of oil prices.

The beneficial effect of deregulation would be increased availability of natural gas. Federal Energy Administration officials estimate that comprehensive deregulation would reduce the expected shortages by one-third this winter and more in future years. A recent FPC ruling allowing affected industries to purchase supplies directly from producers at unregulated prices--in effect a partial deregulation of prices--may succeed in reducing curtailments somewhat.

Wages. Labor costs do not seem to be a major factor in the current acceleration of prices, as shown in Chart I. The best monthly indicator available--the hourly earnings index for production workers in the private economy (seasonally adjusted but not including fringe benefits)--has risen at an annual rate of 8.2 percent over the last eight months, compared to a 10 percent annual rate in the last half of 1974. Over the last two months the annual rate of increase has been 7.5 percent.

The Outlook for Prices

A number of factors in the recent price rise--Soviet grain purchases, for example, or the effect of last year's grain harvest on meat prices--are one-time rather than continuing influences. For this reason, CBO does not project a continuation of the double-digit inflation rates of the last month or two during the remainder of 1975. Rather, CBO expects a General Price Index (the GNP deflator) in the range of 189-191 (1958 = 100) in the fourth quarter, which implies an annual inflation rate of 6 to 8 percent in the second half of 1975. This range is above the actual rate during the early months of 1975, but well below 1973-74 rates.

Beyond 1975, the course of prices is much harder to foresee. The most favorable outcome would include moderation of wage increases and gains in productivity, leading to a steady reduction of price increases. Because of the delayed effects of high grain prices and the probable continued rise in fuel prices, that outcome at present does not seem the most likely one. The worst outcome would be a new surge in food prices, sharp rises in prices of uncontrolled domestic oil, and a substantial price boost by OPEC countries followed by a new round of increases in wages and prices generally. This outcome can by no means be ruled out at present. The next chapter of this report describes

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a set of assumptions about food and fuel, as well as fiscal and monetary policies, leading to projections of prices through 1977.

It is widely recognized by now that inflationary shocks in food, fuel, or other markets not only drive prices up but slow down economic growth and recovery. This is because the higher prices reduce both real income and real wealth of households, thereby causing households to reduce purchases of goods and services. In the absence of vigorous policies to counter this trend, substantial price shocks during the next six months could, by late 1976 or 1977, weaken or even halt the current economic recovery.

Production and Demand

The unemployment rate, after reaching a peak of more than 9 percent in the late spring, has begun to recede. Increases in consumer buying and rapid declines in inventories give reason to hope that recovery will be rapid in the next few months. The longer run future is far less certain, however. Important economic sectors such as housing and capital goods do not yet show evidence of sustained growth, and renewed price increases could slow or even abort the recovery.

Indicators of Recovery

For some months leading indicators of general business activity have signaled that a recovery is under way. Leading indicators have been combined by the Department of Commerce into a composite index (recently revised), which turned up in March and has risen significantly each month since. Some of these indicators are the average number of hours worked per week in manufacturing; the layoff rate in manufacturing; manufacturers' new orders for durable goods, in constant dollars; and building permits issued for residential units.

Labor Market Indicators

Movements in indicators of labor demand are of particular interest because they provide an advance look at likely trends in the key variables of employment and unemployment, which sometimes lag behind other major business cycle variables. The performance of two such indicators, average weekly hours and the index of help-wanted advertising (compiled by the National Industrial Conference Board), confirms that an upturn is in progress. Both variables are rebounding from their early spring levels, although both still are very low by

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historical standards (as shown in Chart 2). In past recessions, the workweek has been among the first indicators to show any upward movement presaging recovery.

Two additional leading indicators, for which a decline is a sign of improvement, are initial state unemployment insurance claims and layoffs per 100 workers in manufacturing. These indicators have also been among the first to signal recovery from past recessions. Both variables, as Chart 3 shows, have improved since their extraordinarily high peaks at the beginning of this year.

As for unemployment itself, the August, 1975, statistics show that 7.8 million Americans were officially classified as unemployed during the month, resulting in an unemployment rate of 8.4 percent (seasonally adjusted). After rising sharply to 9.2 percent in May, the rate had declined to 8.6 percent in June and 8.4 percent in July. Although the overall rate did not change from July to August, there was a decline for adult men (7.0 to 6.6) and a rise for teenagers (19.1 to 21.1). The rate for all whites declined (7.9 to 7.6) while that for blacks and other races rose (13.0 to 14.0).

The unemployment rate alone gives an incomplete picture of joblessness. During the second quarter of the year, according to the Bureau of Labor Statistics, an additional 850,000 persons wanted jobs but were no longer searching because they were discouraged by the slack labor market. The number of these discouraged workers almost doubled from the same period in the preceding year. In addition, 3.1 million persons were working only part time in August because they were unable to find full-time work, down slightly from 3.2 million in July but up substantially from 2.6 million in August, 1974.

The average duration of unemployment had also increased substantially, from 9.9 weeks in August, 1974 to 15.7 weeks a year later. During August, 18.5 percent of all unemployed persons had been unemployed for twenty-seven weeks or longer, compared to only 7.8 percent at the same time last year.

In summary, while there are numerous signs that a labor market upturn is under way, the upturn is from an extremely low level so that the unemployment problem remains severe with nothing resembling full recovery in sight.

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CHART 2--INDICATORS OF DEMAND FOR LABOR

Hours Worked Per Week, Total
Private Nonagricultural
(seasonally adjusted)

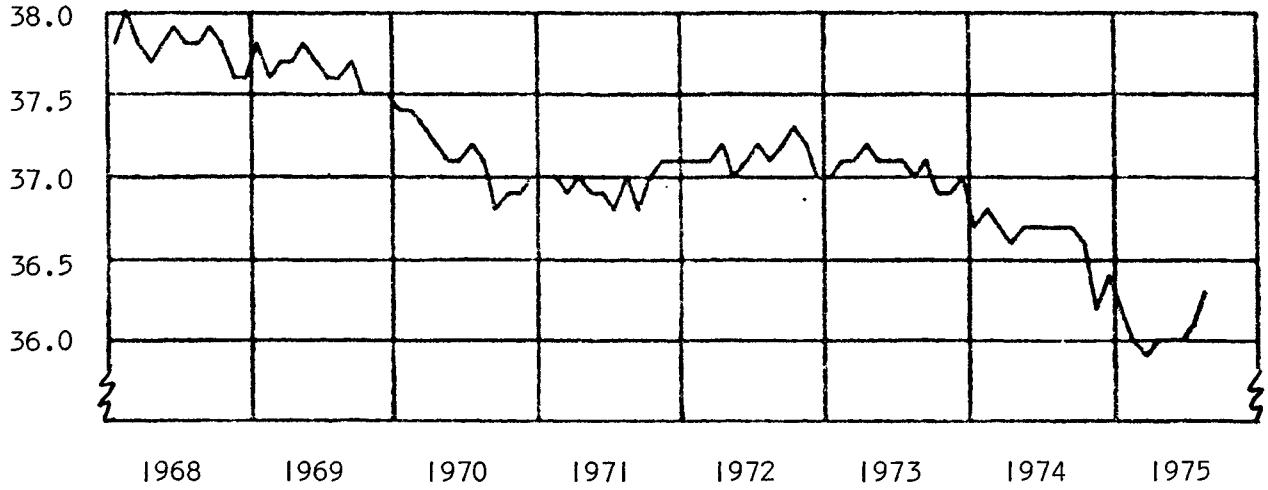

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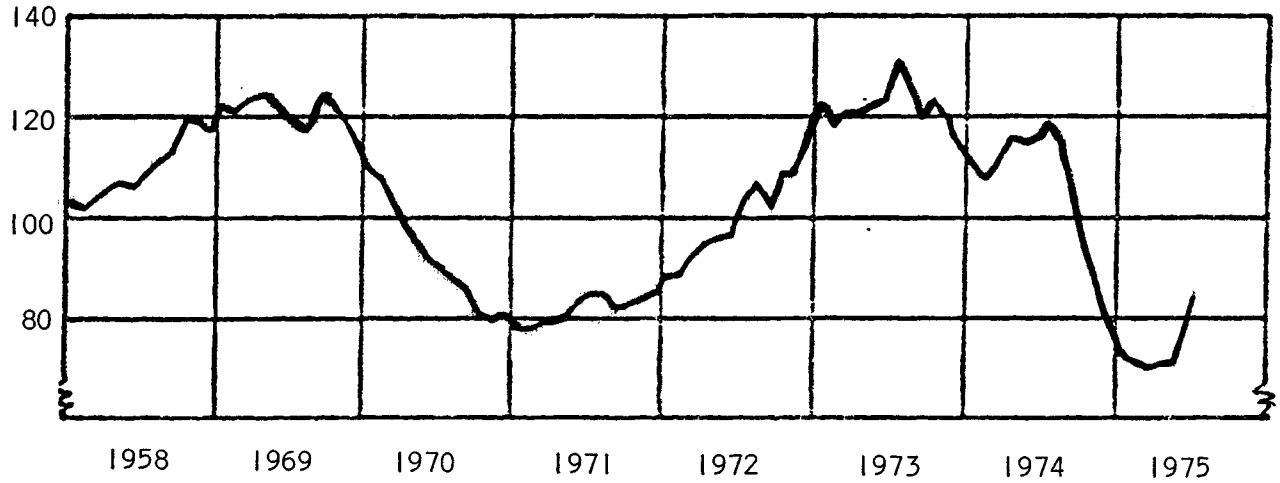
CHART 2 (continued)--INDICATORS OF DEMAND FOR LABOR

Help-Wanted Advertising
(seasonally adjusted, 1967 = 100)



Source: U.S. Bureau of Labor Statistics; The Conference Board.

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CHART 3--LEADING INDICATORS OF UNEMPLOYMENT

Initial Claims for Unemployment Insurance
(average weekly claims in thousands, seasonally adjusted)

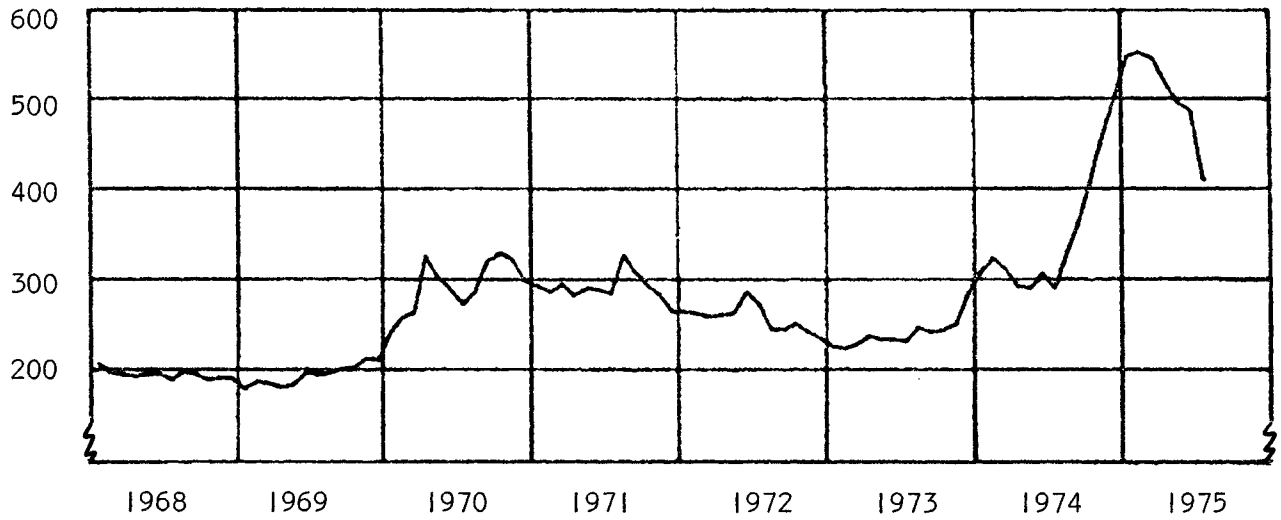

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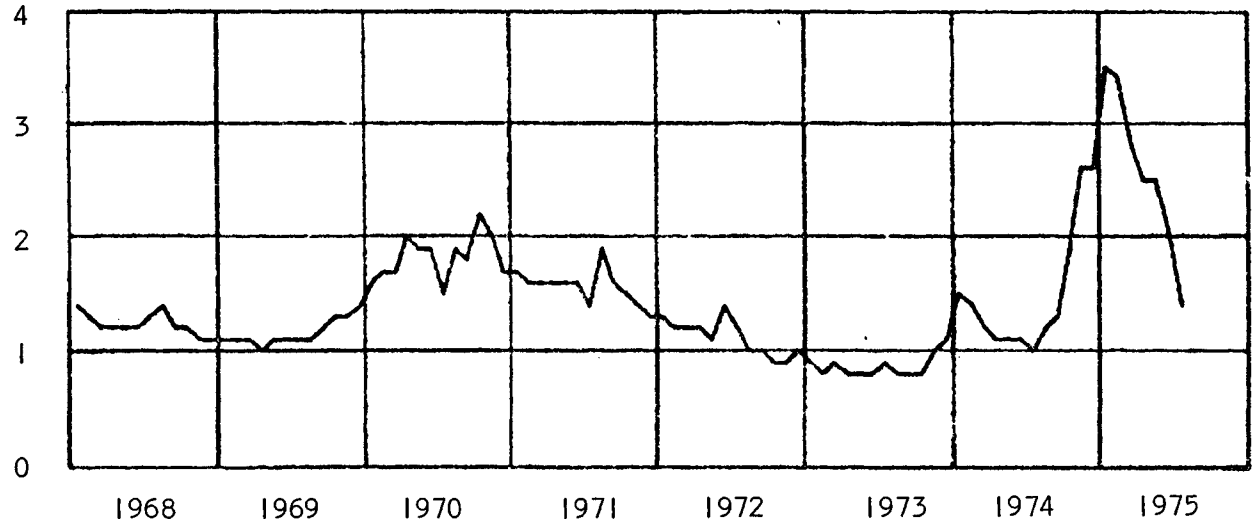
CHART 3 (continued)--LEADING INDICATORS OF UNEMPLOYMENT

Manufacturing Layoff Rate
(per hundred employees, seasonally adjusted)



Source: U.S. Department of Labor; U.S. Department of Commerce, Bureau of Economic Analysis.

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Output, Final Sales, and Inventories

Basic to an understanding of the current economic outlook is a separation of total output (GNP) into final sales to consumers, businesses, and government on the one hand and inventory change on the other. Interplay between final sales and inventory change accounts for a large share of month-to-month and year-to-year fluctuations in output and employment. When final sales drop, inventory levels appear excessive to businesses which, after a brief lag, usually reduce inventories. When final sales pick up, inventory levels soon begin to appear insufficient, and after a lag, are usually increased. Inventory-sales interaction reemerged as a major factor in the economy in 1974-75, after playing only a minor role in the late 1960s and early 1970s.

In the most recent quarter, final sales (as measured by constant-dollar GNP excluding inventory investment) increased significantly, after little change in the first quarter of 1975 and a precipitous decline in the fourth quarter of last year. These movements are compared in the left panel of Chart 4 to developments before and during the 1957-58 recession--until recently, the sharpest output decline since the end of World War II.

While final sales rose in the second quarter, inventories fell rapidly, as the right panel of Chart 4 shows. During the sales declines of late 1974, businesses had simply been unable to cut output as fast as final demand dropped, so unwanted stocks piled up at factories and retail establishments. In the first and second quarters of 1975 businesses succeeded in massively reducing these excess inventories. By the end of the second quarter, the inventory reduction and the increase in final sales had brought the overall ratio of inventory to final sales down considerably, though its level was still quite high by historical standards.

The combination of rising final sales and sharp inventory liquidation in the second quarter is the kind of pattern likely to lead to a significant rise in output during the next six months. Inventory reduction seems most unlikely to continue at the huge second-quarter rate, because much of the unwanted inventories has by now been sold and final sales are now rising. A continued increase in final sales, coupled with a moderate rate of inventory liquidation, would cause a sharp increase in total GNP during the remainder of 1975. For example, if the second quarter's 4.3 percent rate of increase in real final demand continued through 1975 and if inventories were depleted at a rate of minus $4.4 billion (1958 dollars) rather than the minus $17.1 billion of the second quarter, real GNP would increase at an annual rate of 8 percent during the third and fourth quarters of this year, while the inventory-final sales ratio still

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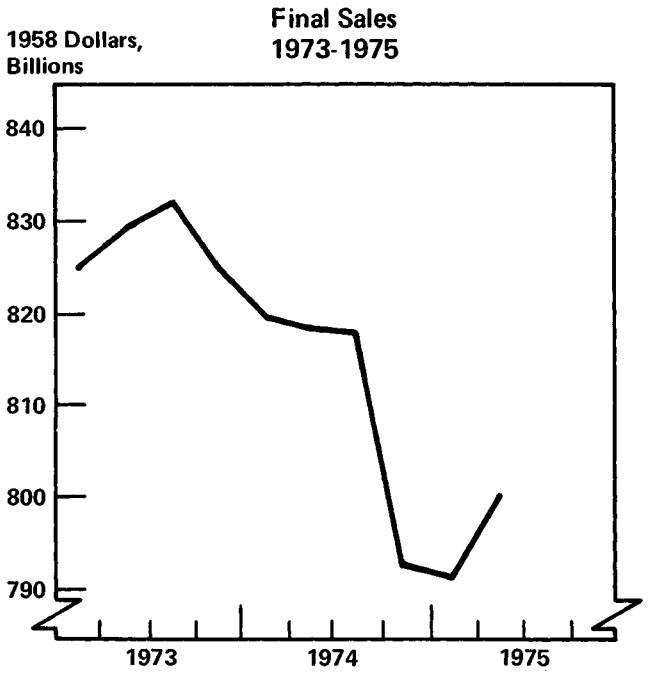
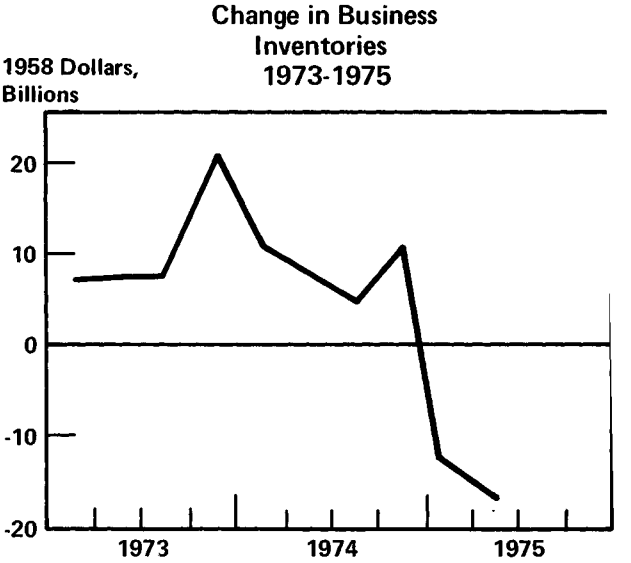
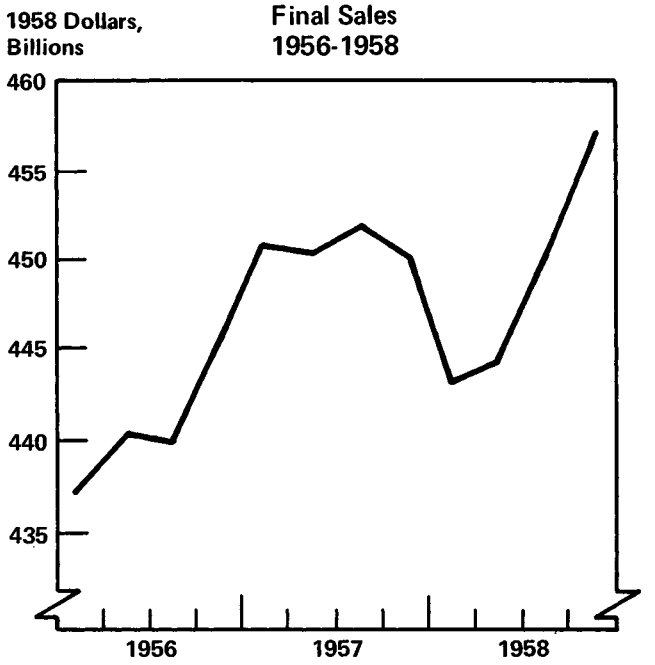
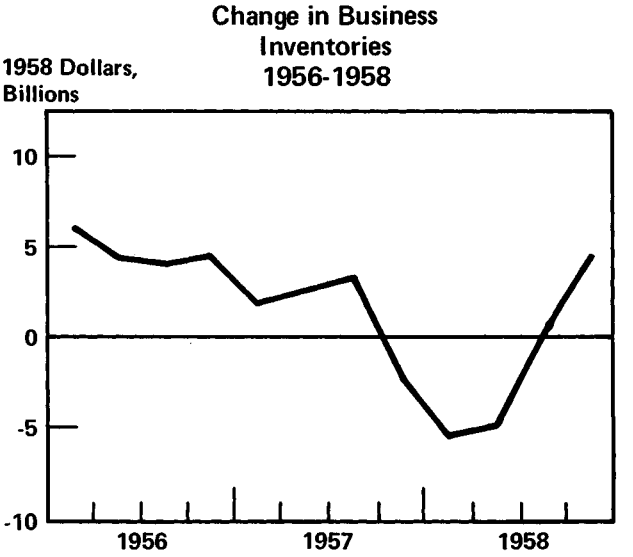
CHART 4 -- FINAL SALES AND INVENTORIES IN TWO RECESSIONS (ANNUAL RATE)









Source: U.S. Department of Commerce, Bureau of Economic Analysis.

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would be reduced. Moreover, if this rate of growth were concentrated mainly in one quarter, that quarter could show a double-digit rate of growth in output. Such a rapid rate of growth could lower the unemployment rate significantly; in fact, the average July-August unemployment rate shown in Chart 5 suggests that this may already be happening.

It is important to recognize, however, that a rapid rate of increase in output, stemming from an end to massive inventory liquidation, is not a symptom of underlying strength in the economy, but rather a sign of the depth of the recession. The stimulus to output coming from a rapid return to normal rates of inventory investment usually lasts no more than a year. If recovery is to continue, the stimulus from inventories must be replaced with expansion in final demand. Judgment about the rate of expansion in 1976 and 1977 must rest not on the inventory-sales situation but on an analysis of trends in final demand.

Final Demand: Consumer Spending

In the first half of 1975, the principal source of strength in final demand was the consumer sector. Personal consumption expenditures, after a sharp decline in the last quarter of 1974, increased somewhat in the first quarter of 1975, partly in response to the price rebates on new autos offered to clear out overstock. In the second quarter, incomes were bolstered by one-time payments from the federal government--including rebates on 1974 income taxes and special Social Security payments--and by a reduction in withholding rates. Apparently much of this cash flow was not spent immediately; the personal savings rate rose to the highest level since early 1946. But enough was spent so that personal consumption expenditures rose significantly, at a 6.3 percent annual rate in real terms.

In July and August, sales of domestic autos continued to rise. Retail sales of other goods rose sharply in July, but fell back somewhat in August. Recent trends in domestic auto sales are compared in Chart 6 with 1956-58 trends. Data on consumer credit for June and July suggest some increase in consumer willingness to incur new debt; other measures of consumer confidence, while still low, have improved from the nadirs registered last year.

While the savings accumulated during the second quarter may help consumer spending in the near future, the situation of consumers still is not encouraging. Second quarter increases in real disposable income are largely attributable to the tax reductions and Social Security payments, not to income generated in the private economy. With the end of these special payments, personal income fell in July. Wage

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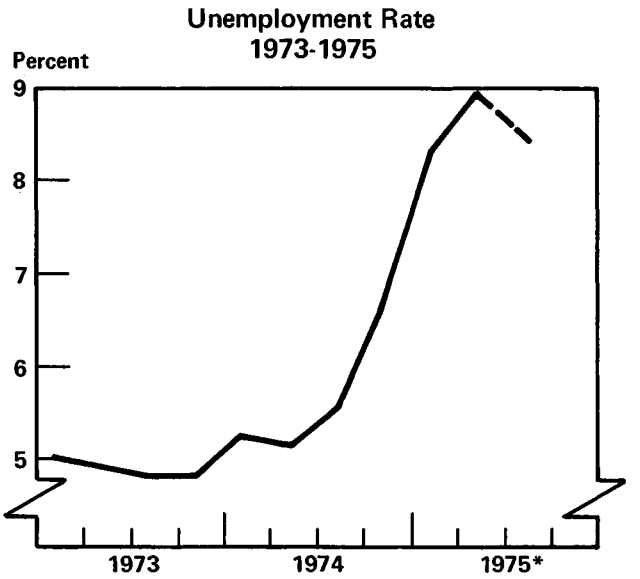
CHART 5 —— UNEMPLOYMENT IN TWO RECESSIONS



*Third quarter 1975 partly estimated.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

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and salary payments have risen in recent months, including July, but have failed to keep up with the rise in consumer prices, including those of food and energy. If renewed inflation, rising interest rates, and falling stock prices continue, consumer spending will be discouraged. Even the recent improvement in auto sales may prove to be temporary, as was the case last summer when an upturn in sales turned out to be an effort by consumers to beat higher prices on the 1975 models, rather than the beginning of a recovery.

Final Demand: Housing and Capital Spending

Residential construction activity finally started to improve in the second quarter. The increase in housing starts, to a level 7.2 percent above the depressed first quarter, was both small and late compared with some previous recessions, though as Chart 6 shows it was similar to the trend of early 1958. In July the rise continued and included both single-family and multifamily housing. This increase in starts is likely to be reflected in an increase in real residential construction expenditures in the rest of the year.

Beyond that point the outlook is clouded. The recent upturn in starts was aided through June by substantial flows of funds into thrift institutions. These flows, however, slowed in July. Recent increases in interest rates are reportedly causing funds to start to flow away from the thrift institutions that supply much of the finance for the housing market, toward direct investment in short-term financial paper.

The business capital goods sector typically does not add significantly fo final demand in the early stages of economic expansion. The present recovery conforms to this pattern: although businesses anticipate a slight rise in the second half of this year in capital spending in current dollars, Chart 7 shows that price increases for capital goods will translate the rise in current dollars into a leveling-off in terms of actual new machines and plants.

There was a surge in contracts and orders for capital goods in April, following the enactment of the new investment tax credit. Much of this surge was apparently for electric utility plants with long lead times, and may not be reflected in spending this year. Since April, contracts and orders have been declining.

The Commerce Department survey of capital spending plans for 1975 indicates that many industries are planning reductions even in current-dollar terms. High fuel prices have led to cutbacks in investment plans by auto manufacturers, airlines, truckers, and the many industries that supply the auto industry. On the other hand, mining, pipelines, and petroleum as well as other materials industries--which were characterized by shortages and high capacity utilization during the 1973 boom--

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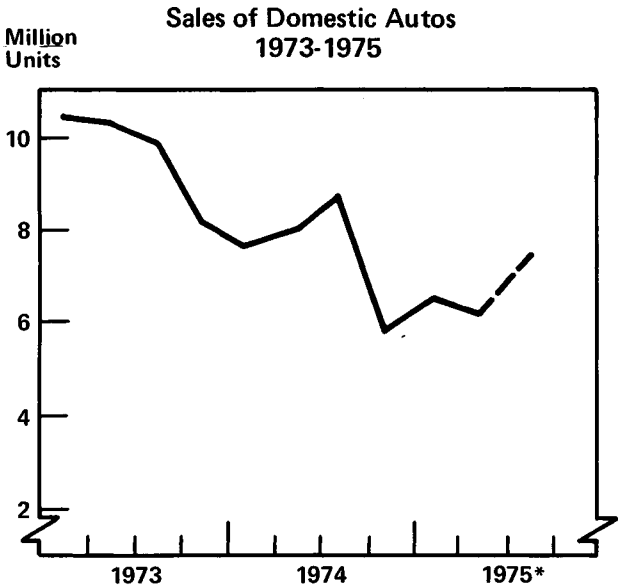
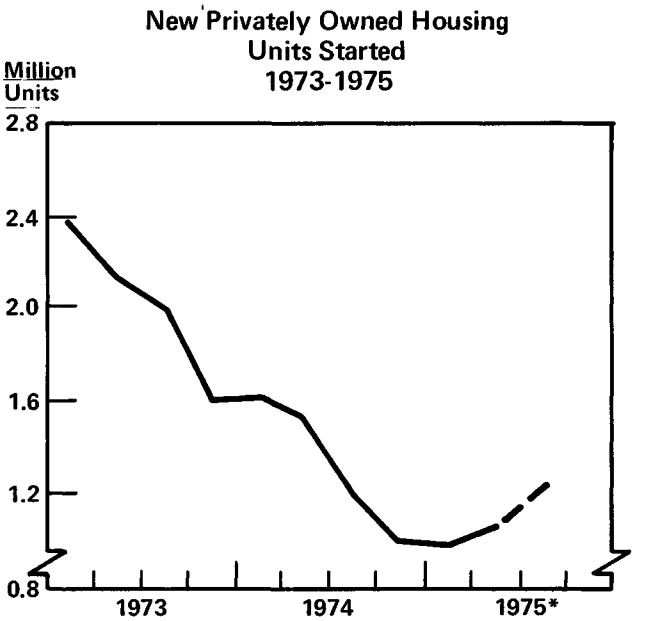
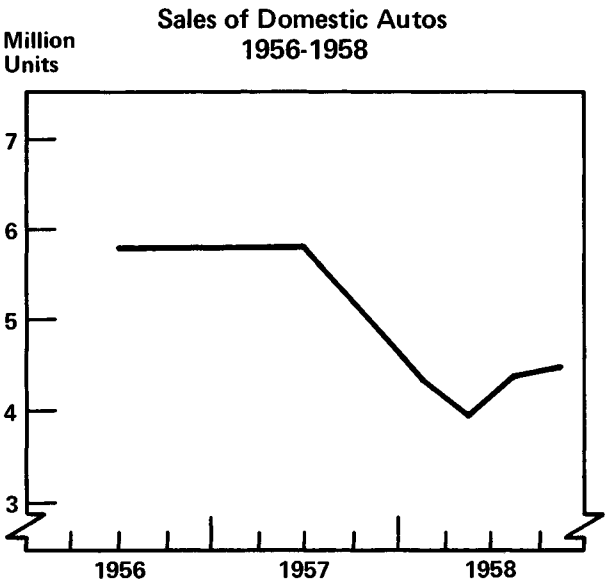
CHART 6 -- HOUSING STARTS AND AUTO SALES IN TWO RECESSIONS (SEASONALLY ADJUSTED ANNUAL RATE)

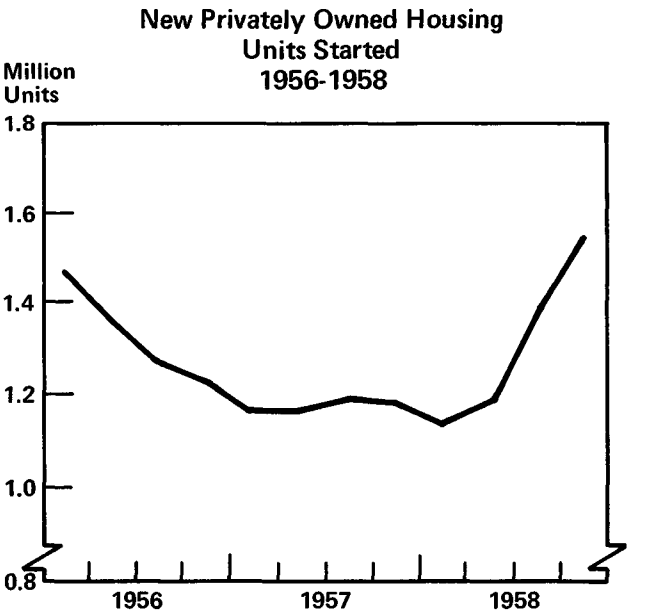


*Third quarter partly estimated.



*Third quarter data partly estimated.





Note:

Only annual averages are available for 1956-57; they are plotted at mid-year.

Source: U.S. Department of Commerce.

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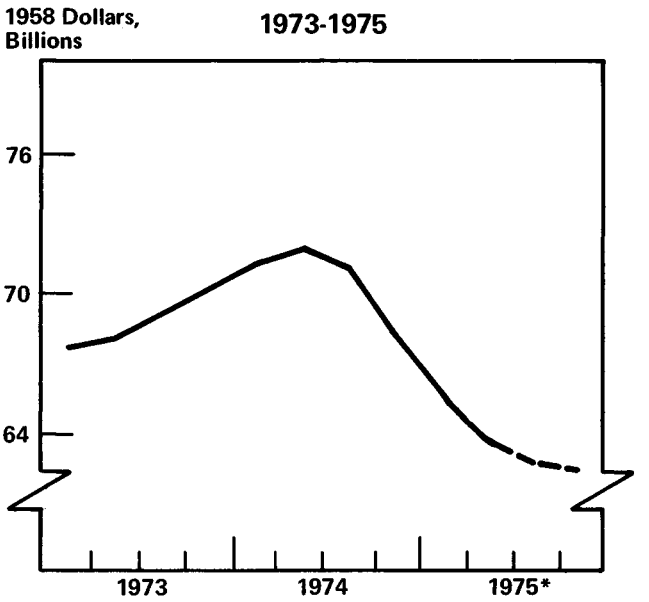
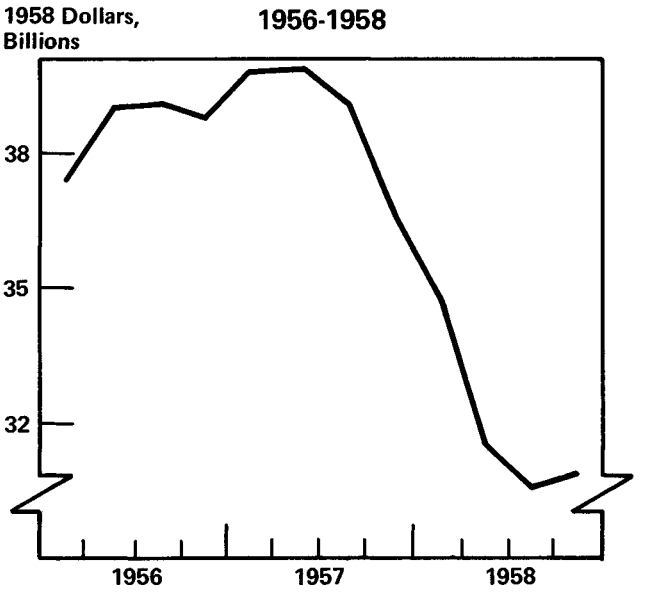
CHART 7 —— BUSINESS EXPENDITURES FOR PLANT AND EQUIPMENT IN TWO RECESSIONS (SEASONALLY ADJUSTED ANNUAL RATE)



*Last two quarters of 1975 based on Department of Commerce survey of expected spending. Deflators for last two quarters of 1975 projected by CBO.



Source: U.S. Department of Commerce, Bureau of Economic Analysis.

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are expecting large increases in capital spending. This latter group includes the steel and paper industries. Capacity shortages like those of 1973 do not seem at all likely to develop in the next few years.

If consumer spending holds up next year, the outlook for an increase in investment spending will be better. Capacity utilization, now very low, will increase when inventory liquidation ends, as well as in response to increases in real final demand. A sharp decline in corporate profits reversed itself in the second quarter, and profit increases may be expected to supply funds for investment.

Final Demand: Government Spending

The federal government sector also contributed to the increase in final demand in the first half of this year. However, the spending targets of the 1976 First Concurrent Resolution on the Budget, when they are expressed in constant dollars, imply some slowdown for this aggregate over the rest of the year.

State and local government spending, which showed no increase in real terms during 1974, contributed to the rise in real final sales in early 1975; this increase reflected federally funded public service employment. Any further increases in such employment depend on future federal legislation. An increased volume of construction spending is expected later this year, despite the failure of municipal bond interest rates to decline.

While recovery in the economy will bolster tax receipts and facilitate further spending increases, renewed rapid inflation would cut into the real purchasing power of both state and local governments and the federal government, just as it does with private households.

Final Demand: Net Exports

In real terms, net exports of goods and services--exports minus imports--rose at an annual rate of $2.5 billion (1958 dollars) in the first quarter and an additional $1.8 billion in the second. Factors in the improved trade balance have been strong exports of machinery and transportation equipment and a recession-induced decline in imports, including petroleum products. July statistics recorded a sharp rebound in petroleum imports from a very low June level, as well as an increase in food exports. Net exports of merchandise overall were below the second-quarter level. Whether exports will recede further or begin to increase depends on the depth of the recession abroad, the extent to which OPEC nations spend their dollar balances, and the magnitude of foreign grain purchases from the United States.

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The Outlook for Production and Unemployment

The charts accompanying this chapter suggest some similarities between the current period and the recovery after the 1958 recession. Although the recent decline has been steeper than the 1957-58 decline, the interaction between inventories and sales and movements in some categories of final demand have been similar.

It is worth recalling, therefore, that what looked like a vigorous recovery in 1958 never went far enough to restore unemployment and capacity utilization to normal levels. Initially, real GNP rose from its recession low at a 10 percent annual rate for two quarters. But by 1960 the upswing had stalled and a new recession was under way. The unemployment rate never reached the 1956 level during the 1958-60 expansion; in fact it did not reach that level until 1965. Both fiscal policy, as measured by the full employment budget surplus, and monetary policy, whether measured by the rate of change in the money supply or by interest rates, turned restrictive by late 1959 and contributed to the 1960 downturn.

CBO projections suggest a sharp recovery for the remainder of 1975, much like the early stage of the 1958-60 recovery. In real terms, GNP is expected to grow at an annual rate of nearly 8 percent from the second to the fourth quarter, and the unemployment rate is expected to remain in the 8.1 to 8.6 percent range, compared to 8.9 percent in the second quarter. The vigor of the upturn reflects the shift from sharp inventory reduction to inventory stability and the rise in consumer spending stemming in part from the one-time tax rebates of May and June.

Rebuilding inventories, of course, will not sustain the recovery for long. Continued increases in production and reduction of unemployment depend on continued growth in final demand for consumer goods, housing, capital goods, and exports. At present the strength of sustained increases in final demand is very much in doubt.

The CBO projections detailed later in this report point to a slowdown in the recovery starting in mid-1976, although the recovery still will be more sustained than that of 1958-60. Nevertheless, as indicated above, energy and food price developments and a restrictive monetary policy could abort the current recovery after a relatively brief upswing. And it is in any case true now, as it was in 1958, that even two years of vigorous recovery still will leave a sizable gap between actual and potential output. It is important not to confuse rapid <u>increases</u> from current depressed conditions, which are likely to take place over the next six months, with high <u>levels</u> of resource utilization.

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CHAPTER III

THE OUTLOOK

Current economic news suggests that the upturn in production will be rapid over the next few months, but that a renewal of inflation--initially stemming from food and fuel price increases--will accompany the upturn. CBO's projections for the last quarter of 1975 reflect these trends. GNP in constant dollars is expected to grow at approximately an 8 percent annual rate from the second through the fourth quarter of 1975. Unemployment is expected to fall within the 8.1 to 8.6 percent range by the last quarter of this year, compared to the second quarter's 8.9 percent. Meanwhile, the general level of prices is expected to rise at a 6 to 8 percent annual rate, compared to the second quarter's 5 percent.

Current data provide only partial guidance as to the main forces likely to be shaping the economy beyond the next few months. It is necessary to supplement these data with assumptions about future fiscal and monetary policies and other key influences. This chapter explains CBO's assumptions about these influences and projects major economic indicators through the end of 1977. As with all such projections, the margin of possible error is very wide, not only because some of the assumptions may turn out to be wrong, but also because the translation of assumptions into specific forecasts of unemployment, prices, or GNP involves many judgments and uncertainties.

Key Assumptions

Current trends suggest two ways in which the economy is likely to change in 1976 and 1977. First, the rapid rates of growth in output projected for the next few months are likely to slow sometime in 1976. Second, inflation is likely to remain above the 5 to 6 percent annual rate of this spring.

A slowdown in the growth of output is forecast because two major causes of current growth are temporary. One is the tax rebates mailed out in May and June. These have helped the current strength in retail sales, but they will have much less impact on sales a year from now. The other is the shift from sharp inventory reduction to mild reduction or stability, which should stimulate new orders and production in the months ahead, but will not repeat itself later in the recovery.

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Persistence of inflation rates above 5 to 6 percent is forecast because the food and fuel increases revealed in recent price reports will take some time to work their way from wholesale to retail levels and through the entire wage-price structure. Increases in the wholesale price of grains exert much of their influence on retail food prices by increasing the cost of livestock. Generally, this does not raise meat prices until nine months or more later. Increases in oil prices may show up fairly promptly at the gasoline pump, but generally less promptly in prices of fuel-using goods and services, such as apartment or office rents. And price increases of all kinds may set in motion a round of wage increases higher than they would otherwise be, which then would have a further impact on prices.

A steady course is assumed for fiscal policy: adherence to the first concurrent resolution (including extension of the tax cuts of 1975) through fiscal year 1976 and extrapolation of recent trends in outlays beyond then. For some items in the budget, such as income tax receipts or outlays for extended unemployment compensation benefits, unexpected economic developments clearly can cause dollar amounts to exceed or fall short of any set of targets. CBO's projections have allowed these "uncontrollable" items to respond to such developments rather than adhering strictly to the dollar targets in the first concurrent resolution.

The monetary policy projections are based on the assumption that the rate of monetary growth will be reduced gradually below recent levels. Specifically, the rate of growth of demand deposits and currency is assumed to be just above a 7.5 percent annual rate from the second to the fourth quarters of this year (as compared to a rate of 9.3 percent from the first to the second quarter), slightly more than 7 percent from the fourth quarter of 1975 to the fourth quarter of 1976, and moderately below 7 percent thereafter. Thus, rates of monetary growth in 1976-77 are assumed to fall within the 5.0 to 7.5 percent range announced by the chairman of the Board of Governors of the Federal Reserve System. These declining rates of growth contribute to the projected slowdown in growth but in the long run lessen somewhat the projected rate of inflation.

Among the major uncertainties about the energy outlook are the future of decontrol of old oil prices and OPEC price policies. CBO projections assume that domestic oil prices remain controlled, the tariff on imported oil is removed, and OPEC increases the price of imported oil by $1.50 a barrel as of October, 1975.

Finally, the projections assume that farm prices will rise at 9 percent per year. While this is less rapid than the farm price spurt of the last two months, it greatly exceeds the average rate over the

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last year and a half. Farm prices, in contrast to oil prices, are assumed to be a major source of inflation ahead.

Projections, 1975-77

Projections based on these assumptions for the final quarters of 1975, 1976, and 1977 are shown in Table 4. Statistical models of the economy and less formal judgments about key economic relationships both were used in making the projections.

The projections indicate a fairly rapid recovery during the remainder of the current year and the early part of 1976, followed by slower growth during the rest of 1976 and 1977. The unemployment rate is projected to continue dropping in 1976, but to fall much less rapidly in 1977. Specifically, the projections of the unemployment rate lie between 6.6 and 7.5 percent at the end of 1977, as compared with a 1946-74 average of 4.7 percent.

The projections indicate that price increases will recede from their current high levels, but remain well above what used to be considered normal. Specifically, by the end of 1977 the projections indicate a rate of inflation of the general price level (the GNP deflator) of 5.5 to 7.0 percent, as compared with a 1946-74 average of 3.7 percent.

With respect to 1976, the projected inflation rates are slightly higher than ones presented by the budget committees at the time of the first concurrent resolution; with respect to unemployment, the two sets of projections are about the same. The CBO report on the economy issued on June 30, 1975, projected higher unemployment rates, but the recent drop in unemployment and the favorable movements in leading indicators of labor market growth have led to some scaling down of those projections. The assumption of no decontrol of oil prices has also lowered the projected rate of unemployment.

The inflation rates in the forecast are heavily influenced by the assumed OPEC price increase and the acceleration of food prices above their 1974-75 rates of increase. The growth in aggregate demand has relatively little to do with the rates of inflation projected. Not until the end of 1977 does even the optimistic end of the projection range represent a level of utilization in which aggregate demand changes do begin to approach their normal effect on prices.

The federal deficit is not projected in Table 4 because of an exceptionally large range of estimates arising from different models for estimating federal revenues. It is worth noting, however, that for

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TABLE 4--ECONOMIC PROJECTIONS, 1975-77

	Actual 1975:II	Projected Range: 1975:IV	Projected Range: 1976:IV	Projected Range: 1977:IV	Percent Change 1975:IV to 1976:IV	Percent Change 1976:IV to 1977:IV
GNP (current dollars annual rate)	1440	1535-1560	1735-1765	1895-1935	+11.5-14.5	+8.0-12.0
GNP (1958 dollars, annual rate)	783	810-818	854-867	880-900	+5.0-7.0	+2.0-5.0
General Inflation Index (GNP deflator, 1958 = 100)	184	189-191	200-205	210-220	+6.0-7.5	+5.5-7.0
Consumer Price Index (1967 = 100)	160	165-167	175-181	186-195	+6.5-8.0	+6.0-8.0
Unemployment Rate (percent)	8.9	8.1-8.6	6.9-7.6	6.6-7.5	--	--

Note: Dollar amounts are expressed in billions.

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fiscal year 1976 the range of estimates includes the $68.8 billion deficit voted in the first concurrent resolution. While different models are far from agreement about future trends in the deficit, they provide no basis for rejecting $68.8 billion for 1976.

The growth in constant-dollar GNP projected through 1977 is compared in Chart 8 with a projection of potential GNP, or the GNP the economy would produce at a 4 percent unemployment rate. Actual as a percent of potential GNP increases from its most recent level of 85 percent to 88 to 90 percent at the end of 1977. Uncertain as this estimate is, it nevertheless serves to indicate that in spite of a recovery which initially may look healthy by historical standards, there is a strong likelihood that the economy will continue to function well below capacity for some years to come.

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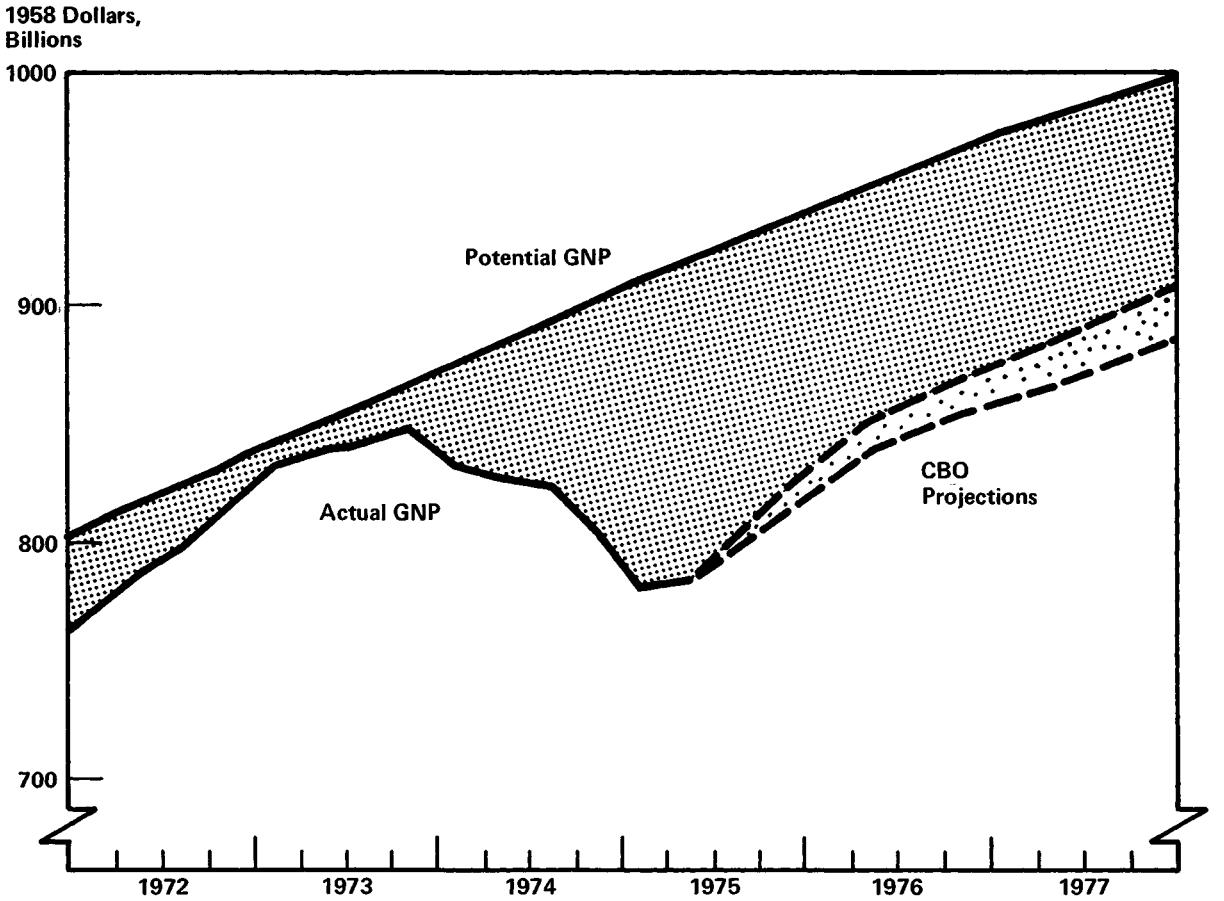
CHART 8 -- ACTUAL AND POTENTIAL GNP, 1972-77



Source: (1) 1973-75:2--Department of Commerce (GNP), Council of Economic Advisers (potential GNP); (2) 1975:3-1977--CBO. Potential GNP has been extrapolated at 3.5 percent per year, or less than the 4 percent rate used by the Council of Economic Advisers, to take account of low levels of capital investment in 1975 (actual) and 1976 (projected).

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CHAPTER IV

ALTERNATIVE FISCAL AND MONETARY POLICIES

With both unemployment and inflation likely to remain above long-range goals for some time, economic policy-makers face a continuing dilemma. Fiscal and monetary policies, the traditional instruments for controlling economic fluctuations, can alleviate unemployment only at the expense of more inflation, and vice versa. Expansionary policies--more government spending, tax cuts, or greater monetary growth--bring down unemployment at least for a time, but eventually take their toll in the form of a higher rate of inflation than would otherwise occur. Restrictive policies eventually reduce inflation, but at the cost of a higher rate of unemployment.

To be sure, an expansionary policy--for example, a $5 billion increase in federal spending--does not always have the same effects on unemployment and inflation. There are good reasons to believe that at present the unemployment effects would be unusually large and the inflation effects unusually small, so that an expansionary policy at present would reduce unemployment more than usual and add to inflation less than usual. One reason is that wages are less sensitive to the unemployment rate when it exceeds 8 percent than they would be when it is at 4 or 5 percent. In addition, capacity bottlenecks that reduce supplies and drive up prices are much less likely to occur when industrial output is at 75 percent of capacity than when it is at 90 or 95 percent.

In all likelihood a restrictive policy would also have different effects at the present time than would normally be anticipated. It would probably reduce inflation by less than usual and add to unemployment more than usual. Thus the tradeoffs between the costs and benefits of economic policies shift as the economy changes; but they never disappear entirely.

In the long run the solution to this dilemma may lie in redesigning or adding to the available policy tools. A policy tool that reduced inflation without increasing unemployment, or reduced unemployment without escalating inflation, would be a welcome contribution to economic stability, at least if it did not have other unwanted side effects.

One tool which the United States has used intermittently is price and wage controls, which are intended to keep prices down without increasing unemployment. However, price and wage controls are extremely

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difficult to administer even-handedly and sometimes reduce supplies or otherwise interfere with the efficient working of markets.

Special measures to stimulate employment in recession--such as public service employment--can be designed to create more jobs per billion dollars than standard fiscal policy instruments such as across-the board tax cuts.[1] If such measures are focused on creating jobs for low-skilled workers at low wages, they have relatively little adverse effect on inflation.

The analysis in the present report is restricted to the traditional policy tools of government spending, tax changes, and monetary expansion. The first section below summarizes the current state of fiscal and monetary policy. The second section analyzes some policy alternatives grouped into two strategies: (1) an expansionary strategy consisting of a spending increase, a tax cut, and a greater rate of monetary growth; and (2) a restrictive or anti-inflation strategy consisting of a spending cut, a tax increase, and a lower rate of monetary growth. In each case the economic effects of the components of the package are estimated, as are the effects of the entire strategy.

Current Fiscal and Monetary Policy

Since the tax rebates of this spring, fiscal policy has adhered to a steady course, while monetary policy has shown signs of tightening. There will be a large deficit in the current fiscal year, but one which is entirely attributable to the depressed state of the economy. The Federal Reserve Bank of St. Louis has estimated that the budget would be close to balance on a full-employment basis. The Federal Reserve System has been pursuing monetary growth targets that are quite high compared to historical averages; but historical averages are not extremely useful in the current era of continuing inflation and inflationary expectations. Recent increases in short-term interest rates and decreases in monetary growth are both signs of a move toward tightness.

Fiscal Policy

On the fiscal side, as Table 5 shows, spending bills completed by the Congress or under way in the House of Representatives (where spending bills originate), amount to a total of $291.3 billion or $75.7 billion less than the outlay target in the 1976 First Concurrent Resolution on the Budget.

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1. Temporary Measures to Stimulate Employment: An Evaluation of Some Alternatives, Congressional Budget Office, U.S.Congress, September 2, 1975.

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TABLE 5--FEDERAL OUTLAYS FOR FISCAL 1976
(billions of dollars)

Functional Category	First Concurrent Resolution Target	Completed Action and House Action Under Way	Difference (1 minus 2)	President's Spending Requests Not Yet Reported in House
National Defense	90.7	24.8	65.9	71.0
International Affairs	4.9	3.4	1.5	1.6
General Science, Space and Technology	4.6	4.5	0.1	--
Natural Resources, Environment and Energy	11.6	10.7	0.9	0.4
Agriculture	1.8	2.2	(0.4)	--
Commerce and Transportation	17.5	16.4	1.1	0.1
Community and Regional Development	8.65	6.3	2.35	0.2
Education, Manpower and Social Services	19.85	19.0	0.9	0.3
Health	30.7	32.4	(1.7)	0.4
Income Security	125.3	122.5	2.8	3.3

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TABLE 5 (continued)--FEDERAL OUTLAYS FOR FISCAL 1976
(billions of dollars)

Functional Category	First Concurrent Resolution Target	Completed Action and House Action Under Way	Difference (1 minus 2)	President's Spending Requests Not Yet Reported in House
Veterans' Benefits and Services	17.5	16.7	0.8	1.7
Law Enforcement and Justice	3.4	3.2	0.2	0.1
General Government	3.3	2.9	0.4	0.3
Revenue Sharing and General Purpose Fiscal Assistance	7.2	7.0	0.2	0.3
Interest	35.0	35.0	0	--
Allowances	1.2	0.3	0.9	1.3
Undistributed Offsetting Receipts	(16.2)	(16.2)	0	--
TOTAL	367.0	291.3	75.7	80.9

Source: Congressional Budget Office, 1976 Congressional Budget Scorekeeping Report No. 2 (as of September 2, 1975).

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TABLE 5 (continued)--FEDERAL OUTLAYS FOR FISCAL 1976
(billions of dollars)

Notes:

1. Columns may not total due to rounding.

2. Column one contains the figures for Congressional outlay targets from the first concurrent resolution on the budget (H. Con. Res. 218).

3. The figures in column two are the sum of completed legislation (passed Congress) plus action under way in the House of Representatives. The House rather than the Senate was used because spending legislation is usually first acted on in the House. Included in the figures in this column are outlays enacted in prior years, outlays enacted in this session, outlays passed by Congress but not signed, and outlays that have been reported in or have passed the House. In all cases outlays are estimates of the impacts of Congressional action.

4. Column three is the difference between column one and column two and represents the estimated outlays (contained in the concurrent resolution) that have not yet been reported into the House.

5. Column four represents the President's spending requests not yet reported in the House.

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However, Presidential requests of $80.9 billion remain to be acted upon by the House. If all these outstanding Presidential requests were honored by both the House and the Senate, then total outlays would exceed the first concurrent resolution by about $5 billion. One major uncertainty is in the area of national defense, where Presidential requests are significantly above the additional amount Congress can appropriate and stay within the target. Other influences on the final course of spending are unanticipated changes in "uncontrollable" items such as unemployment compensation, Presidential vetoes and override attempts, and new spending legislation.

The targets of the first concurrent resolution include a federal deficit of $68.8 billion. The large size of the deficit can be attributed almost entirely to the effects of the recession on tax receipts, outlays for unemployment insurance, and other forms of income assistance. Of course the fact that the deficit would disappear if the country were enjoying full employment does not eliminate the Treasury's current need to borrow in order to finance it. However, this fact does suggest that if the economy gradually approaches higher levels of employment over the next few years, strong forces will be in motion reducing the size of the deficit.

Monetary Policy

Since early 1974 the Federal Open Market Committee of the Federal Reserve System has set short-run targets for an interest rate (federal funds rate--the short-term interest rate banks charge each other to borrow money) and for growth rates of two stocks of financial assets: the narrowly defined money supply including demand deposits and currency (M_1), and a broader definition of money including bank saving deposits (M_2). Targets in all three cases are expressed in the form of ranges within which actual amounts are intended to fall. Which of these three represents monetary policy is not easy to determine; the Federal Reserve is rarely able to hit all three targets simultaneously and in fact frequently misses all three of them. In June, for example, as Table 6 shows, the federal funds rate was slightly above the intended range while both monetary rates of growth were far above the target levels. What, then, was monetary policy in June?

The answer is probably that monetary policy strives for a compromise among the various goals, and in addition allows for special unanticipated developments as each month progresses. In June, for example, monetary growth rates were heavily and artifically swollen by the unexpectedly large impact of $50 payments to Social Security recipients and certain other beneficiaries, a one-time fiscal development that also lowered growth rates artificially in July. Special developments of this sort are permitted to show up as deviations from the target ranges. Revisions and

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TABLE 6--FEDERAL OPEN MARKET COMMITTEE MONEY AND INTEREST RATE TARGETS IN 1975

Month	Rate of Growth from Preceding Month (percent per year)				Level of Federal Funds Rate (percent)	
	M_1		M_2			
	Actual	Target Range	Actual	Target Range	Actual	Target Range
January	-8.9	5 - 7	4.0	7.5 - 10	7.1	7.5 - 9.0
February	5.7	3.5 - 6.5	9.8	7 - 10	6.2	6.5 - 7.25
March	11.6	5.5 - 7.5	12.5	6.5 - 8.5	5.5	5.25 - 6.25
April	4.3	5 - 7.5	7.9	8 - 10	5.5	4.75 - 5.75
May	11.4	6.5 - 9	14.0	9.5 - 11.75	5.2	4.75 - 5.75
June	19.3	7 - 9.5	20.5	9 - 11.5	5.6	4.5 - 5.5
July	2.1	6.5 - 9.5	8.7	9 - 12	6.1	5 - 6
August	4.3*	3 - 5.5	6.2*	8 - 10.5	6.2	5.5 - 6.75

Source: Federal Reserve Bulletin, various issues.

*Preliminary.

Notes:

1. M_1--demand deposits and currency.

2. M_2--M_1 plus bank time and savings deposits except for large negotiable certificates of deposits.

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lags in the availability of money supply data also account for some of the deviations from targets.

If a combination of interest rate targets and money growth targets is used to describe current policy of the Federal Reserve System, then tightening of monetary policy appears to be taking place. The target range for the growth rate of the narrow money supply was raised gradually from February to June but in July and August the range was dropped. The targets were also lowered in August for the broader money supply. The federal funds rate targets had been lowered from January to June, but were raised in July and August. The lowering of target rates of monetary growth and the raising of interest rate targets are both signs that monetary authorities are moving toward a tight policy.

In fact, short-term interest rates, and even long-term rates have been rising since first-quarter lows. To be sure, a general rise in interest rates during a recovery in economic activity, is not uncommon. During the first year of recovery from all the recessions since World War II, the average rise in the Treasury bill rate was roughly 33 percent of its level at the bottom of the economic cycle. The current situation is unusual because of the immediate and significant increases in short-term rates while output is still far below its potential. There is growing concern that rapid and large increases in interest rates could seriously affect the already weak housing sector, perhaps enough to undermine a vigorous recovery.

Policy Alernatives

Alternative policies analyzed in this report are divided into an expansionary strategy and a restrictive strategy. Each strategy consists of a spending component, tax component, and a monetary component. The expansionary strategy as a whole is estimated to lower the unemployment rate by 1.1 percentage points by the end of 1977, so that the basic CBO projection of unemployment at 6.5 to 7.5 percent would be lowered to 5.4 to 6.4 percent if the expansionary strategy were added. The restrictive strategy as a whole is estimated to raise the unemployment rate by 0.9 percentage points by late 1977. The unemployment effects of these strategies would slowly decline in later years.

Since the inflation effects of these policies are slow to develop, it is necessary to look far ahead to form a realistic judgment of the inflationary damage of the expansionary strategy or the inflationary improvement of the restrictive strategy. Looking only one or two years ahead can give misleading signals about the inflation consequences of economic policies. In order to reach a judgment (necessarily approximate) about long-run inflation effects, CBO has constructed a simple

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model that can trace the inflation consequences of a change in unemployment, in farm prices, or in fuel prices.[2]

Based on this model, CBO estimates that the expansionary strategy would raise the rate of inflation by 0.5 to 0.7 percent at the end of five years; that is, if the rate of inflation in the absence of the policy were 5 percent per year, then the rate with the policy would be 5.5 to 5.7 percent. In the case of the restrictive strategy, the annual rate of price increases at the end of five years would be 0.3 to 0.4 percent lower. In both cases, inflation effects are negligible in the first year and then build more significantly by the end of five years. Beyond five years, inflation effects diminish gradually.

The Expansionary Strategy

The expansionary strategy consists of the following three components:

(1) an increase in spending of $5 billion (annual rate) in the first quarter of 1976 and $10 billion (annual rate) thereafter, divided equally among defense purchases, nondefense purchases, and grants-in-aid;

(2) a cut in personal tax rates (above the extension of the 1975 cuts) starting in the first quarter of 1976 that loses approximately $15 billion in revenues (annual rate) during that quarter with somewhat greater revenue loss as incomes grow; and

(3) a rate of growth of the money supply sufficiently high to offset the effects on short-term interest rates of the fiscal components and hence keep interest rates at levels projected in the basic forecast.

The estimated effects of these policies are shown in Table 7. As the final column in the table shows, the three components together build up to a substantial effect on GNP and unemployment by the end of 1977.

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2. The model consists of two equations fit to annual data, a price-change equation and a wage-change equation. Price changes depend on fuel price changes, farm price changes, and current and previous-year wage changes. Wage changes depend on the unemployment rate and on current and past price changes. There are two versions of the model, each with a different constraint on the sum of the price-change coefficients in the wage equation. A description of the model will be available from CBO on request.

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TABLE 7--POLICY ALTERNATIVES: ESTIMATED EFFECTS OF EXPANSIONARY FISCAL AND MONETARY POLICIES

	Spending Component	Tax Component	Monetary Component	Combined Spending, Tax, and Monetary Components
EFFECT OF POLICY ON:				
Current-Dollar GNP (billions):				
1976:IV	+18	+18	+ 5	+39
1977:IV	+24	+28	+13	+63
Real GNP (billions):				
1976:IV	+ 8	+ 9	+ 2	+19
1977:IV	+ 9	+11	+ 6	+25
Unemployment Rate (percentage points):				
1976:IV	-.4	-.3	-.1	-.7
1977:IV	-.4	-.4	-.3	-1.1

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TABLE 7 (continued)--POLICY ALTERNATIVES: ESTIMATED EFFECTS OF EXPANSIONARY FISCAL AND MONETARY POLICIES

	Spending Component	Tax Component	Monetary Component	Combined Spending, Tax, and Monetary Components
Federal Deficit (billions; national income basis):				
1976:IV	+ 5	+12	- 2	+15
1977:IV	+ 4	+11	- 4	+10
Inflation Rate (annual rate of change, General Price Index):				
1976	0	-.1	0	0
1977	+.2	+.1	+.1	+.4
1980	+.2	+.2	+.2	+.5 to +.7

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The monetary component contributes less than the other two components to the strategy for two reasons. First, the size of the monetary component was determined by calculating the change in monetary policy needed to offset the effects on short-term interest rates of the two fiscal components; this "accommodating" change turned out to be only about 0.5 percent per year in the rate of monetary growth. Second, the contribution of the monetary component is small because monetary policy operates with longer lags than fiscal policy. The effects of the spending and tax components will have reached their peak by the end of 1977 but the effects of the monetary component will still be growing.

The unemployment effects of the spending increase are equal to or larger than those of the tax cut, despite the fact that the expenditure increase initially is only $10 billion and the tax change initially is $15 billion, and more by 1977. One reason is that dollar for dollar, expenditure increases have a greater effect on economic activity than do personal tax cuts. The other reason is that some expenditures result in direct federal employment; during an early recovery period such an expenditure creates more jobs per dollar than do expenditures in the private sector. In the private sector, employment is reduced by less than total spending during a recession and increased by less than total spending during early recovery; increased spending in early recovery serves to restore normal profit margins and pay off debts, as well as to hire additional workers. In the federal sector these special early-recovery effects are absent.

The effects of the two fiscal components on the federal deficit are smaller than the initial size of the components. That is, a $10 billion increase in spending results in an increase in the deficit of less than $10 billion, and a $15 billion tax cut increases the deficit by less than $15 billion. This is because the economic growth stimulated by these fiscal moves brings in additional tax revenues and reduces outlays for income assistance programs; these offset some of the direct effects of the deficit. The growth stimulated by monetary expansion also brings in tax revenue, reduces income-assistance outlays and hence reduces the deficit.

No "crowding out" of private investment is expected to occur under these policies. The spending and tax components, separately or together, do drive interest rates up and this rise has a dampening effect on private investment; but the interest rate effect is more than offset by the stimulus to investment from the higher sales which expansionary policies induce. Private investment (not shown in the table) rises, not falls, in response to more government spending or lower taxes.

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The Contractionary Strategy

The restrictive policy alternative consists of the following three components:

(1) a cut in spending of $5 billion (annual rate) below the first concurrent resolution in the first quarter of 1976 and $10 billion thereafter, divided equally between nondefense purchases and grants-in-aid;

(2) termination instead of extension of the temporary provisions of the Tax Reduction Act of 1975; and

(3) a rate of monetary growth sufficiently low to offset the interest rate effects of the fiscal components and hence keep interest rates at levels projected in the basic projections.

The estimated effects of these policies are shown in Table 8. The three components together are estimated to raise the unemployment rate by 0.6 percentage points at the end of 1976 and 0.9 percentage points at the end of 1977. The inflationary gain from the package is estimated as a 0.3 to 0.4 percent reduction in the annual rate of inflation after five years. Many of the comments about the details of the expansionary results carry over to the restrictive results.

In summary:

- The expansionary fiscal-monetary strategy would lower unemployment by 1.1 percentage points at the end of two years and would raise the rate of inflation for some years beyond that, reaching a peak inflation effect of about 0.5 to 0.7 percent.

- The restrictive strategy would raise the unemployment rate by 0.9 percentage points at the end of two years and would lower the rate of inflation for several years, reaching a maximum reduction of 0.3 to 0.4 percent.

- The expansionary package would raise the federal deficit, although higher tax revenues and lower income-support payments would offset much of the effect of the tax and spending moves.

- The restrictive strategy would lower the deficit, again by much less than the direct effects of the spending and tax moves.

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TABLE 8--POLICY ALTERNATIVES: ESTIMATED EFFECTS OF CONTRACTIONARY POLICIES

	Spending Component	Tax Component	Monetary Component	Combined Spending, Tax, and Monetary Components
EFFECT OF POLICY ON:				
Current-Dollar GNP (billions):				
1976:IV	-14	- 9	- 4	-28
1977:IV	-23	-17	-11	-49
Real GNP (billions):				
1976:IV	- 6	- 4	- 2	-14
1977:IV	- 8	- 7	- 5	-20
Unemployment Rate (percentage points):				
1976:IV	+.3	+.2	+.1	+.6
1977:IV	+.4	+.3	+.2	+.9

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TABLE 8 (continued)--POLICY ALTERNATIVES: ESTIMATED EFFECTS OF CONTRACTIONARY POLICIES

	Spending Component	Tax Component	Monetary Component	Combined Spending, Tax, and Monetary Components
Federal Deficit (billions; national income basis):				
1976:IV	- 6	- 9	+ 2	-12
1977:IV	- 4	-10	+ 4	-10
Inflation Rate (annual rate of change, General Price Index):				
1976	0	0	0	0
1977	-.1	-.1	0	-.2
1980	-.2	-.1	-.1	-.3 to -.4

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CHAPTER V

THE IMPACT OF DECONTROL OF OIL PRICES

A major uncertainty clouding economic forecasts at present is the future course of energy prices, especially oil prices. Rapid increases in the price of oil in the next few months could touch off another round of inflation and drastically impede progress toward reducing unemployment.

At least three new developments could change oil prices substantially in the short-run: (1) the controls limiting the price of old domestic oil[3] to $5.25 a barrel have recently lapsed; if they are not reimposed, the price of domestic crude oil will rise; (2) the OPEC nations could raise the world price of oil from its present level; (3) the special U.S. import fee of $2.00 per barrel on crude oil and $.60 per barrel on refined products could be removed.

The CBO projections of the economy described in Chapter II were based on the following assumptions: that the import fees would be removed; that OPEC would raise the price of oil by a $1.50 per barrel in October, and then hold the price at that level; and that domestic prices of old oil would remain controlled. The President has stated that he will voluntarily drop the tariff if controls end; if controls remain, court action may void the duty in any case. Some OPEC increase in October seems extremely likely. It may be somewhat greater or less than $1.50, but a difference of $.50 in either direction would not make a large difference in CBO's projections. Decontrol is another matter, however. While gradual decontrol--say, over a period of thirty-nine months as proposed by the President--would not have a major effect on the projections, immediate decontrol would have a substantial impact both on inflation and on the progress of economic recovery.

This chapter examines the impact of immediate decontrol and the fiscal measures that would be required to offset this impact.

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3. Essentially, old oil is that which is drilled from wells in existence before September 1, 1972.

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The Costs and Benefits of Decontrol

A report such as this, whose focus is on prospects for economic recovery, cannot deal adequately with all the complex considerations involved in striking a balance between the pros and cons of decontrol. The objective of this chapter is more modest: to document and quantify the rather substantial costs of immediate decontrol in terms of greater inflation and higher unemployment--a burden that is particularly heavy on an economy just beginning to emerge from a severe recession.

But it must be stressed that decontrol has benefits as well as disadvantages. For one thing, ending controls would mean the dismantling of a cumbersome system of government regulations that may distort decisions of drillers, refiners, and consumers alike. For another, the higher price of oil would induce greater conservation. Given the role of imported oil in the United States--that of filling the gap between domestic production and domestic consumption--the entire impact of reduction in consumption would be reflected in imports. CBO estimates that U.S. reliance on imports would be reduced by nearly 700,000 barrels per day by the end of 1977. In addition, tertiary recovery from old oil fields would be encouraged, while higher oil prices also would accelerate the development of alternative energy sources.

Effects of Decontrol on the Recovery

CBO's analysis indicates that immediate decontrol of oil prices would significantly retard the growth of output and employment while simultaneously setting back the battle against inflation. If old oil prices were to be decontrolled gradually, the shock to the nation's economy would be less severe. The increase in the fuel bill would be more likely to come when the economy was stronger, and thus in a better position to cope with it.

Table 9 presents the estimated effects of immediate decontrol on some principal economic variables in the fourth quarters of 1975, 1976, and 1977. For the convenience of the reader, a single number is presented for each variable in each quarter. In reality, no one can anticipate the economic effects of decontrol with this degree of accuracy. The estimates in the table were derived with the aid of the three statistical models of the economy: those of Chase Econometrics, Inc.; Data Resources, Inc.; and Wharton Econometric Forecasting Associates.

According to CBO's estimates, decontrol would increase wholesale prices by nearly 1 percent by the end of 1975 and nearly 4 percent by the end of 1977. Consumer prices would not rise as much as wholesale prices because oil is more important in the Wholesale Price Index than

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TABLE 9--ESTIMATED EFFECTS OF DECONTROL OF OIL PRICES

	1975:IV	1976:IV	1977:IV
EFFECT OF DECONTROL ON:			
Wholesale Price Index (percent)	+0.9%	+3.4%	+3.8%
Consumer Price Index (percent)	+0.4%	+1.6%	+1.8%
General Inflation Index (GNP deflator, percent)	+0.5%	+1.5%	+1.8%
Gross National Product in constant dollars (billions of 1958 dollars)	-$2.5	-$12.1	-$17.2
Unemployment Rate (percentage points)	+0.1	+0.5	+0.6
Gross National Product in current dollars (billions of dollars)	+2.3	+1.9	-$3.2
Federal Budget Deficit (billions of dollars, National Income accounts basis)	-$3.2	-$4.4	-$0.4
Retail Price of Refined Petroleum Products (cents per gallon)	+$.031	+$.067	+$.061
Average Hourly Wage Rate (percent)	0	+0.4%	+0.5%

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TABLE 9 (continued)--ESTIMATED EFFECTS OF DECONTROL OF OIL PRICES

	1975:IV	1976:IV	1977:IV
Interest Rate on Treasury Bills (percentage points)	+.13	+.33	+.20
Imports of Crude Oil and Refined Petroleum Products (millions of barrels per day)	-.012	-.385	-.688

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in the Consumer Price Index, and because the cost of crude oil is a larger fraction of the wholesale price of petroleum products than of the retail price. Decontrol would raise consumer prices by 0.4 percent by the end of 1975, 1.6 percent by the end of 1976, and 1.8 percent by the end of 1977.

In terms of rates of increase of consumer prices, decontrol would add just under 0.5 percentage points to the inflation rate during the last quarter of 1975, just over 1 percentage point to the 1976 inflation rate, and about 0.25 of a point to the 1977 inflation rate. The general inflation index (GNP deflator) behaves in much the same way as the Consumer Price Index.

Decontrol would significantly reduce growth in production below what CBO projects would occur if controls are retained. Decontrol would reduce real GNP by about 1.9 percent by the fourth quarter of 1977. CBO further estimates that the rolls of the unemployed would swell by about 0.5 percentage points or 450,000 workers by the end of 1976 if controls are not continued, and by 0.6 percentage points or nearly 600,000 workers by the end of 1977. The unemployment rate, projected as falling very slowly during 1977 even with decontrol, would stay practically unchanged at a level above 7 percent if immediate decontrol took place.

GNP in current dollars would not change much. The higher prices would just slightly outweigh the reduced levels of production for most of the period.

However, decontrol would noticeably affect the federal budget. Tax receipts would rise substantially at first, largely because of the increased corporate tax payments by oil companies. In late 1975 and throughout 1976, these inflows would more than offset the falling receipts from individual income taxes, the higher payments for unemployment benefits, and the reduced tax collections from nonoil corporations. But by the end of 1977 the weakened economy would have its usual deleterious effects on the federal budget, and the deficit would be about the same despite the higher oil company profits. To some extent, however, these figures may give an excessively optimistic impression of the effects decontrol would actually have on the budget because the analysis assumes unchanged federal expenditures. If some categories of government spending (such as defense purchases of oil and food stamps) were escalated to allow for the higher prices, the short-run beneficial effect on the deficit would be muted.

Table 9 also shows CBO's estimates of the effects of decontrol on the retail price of refined petroleum products. The peak effect would be about $.07 per gallon, though this would not develop until the second quarter of 1976, according to CBO's assumptions about how quickly

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the oil companies would pass through the higher costs of crude oil. This differential effect between the decontrolled price and what the price would have been if controls were continued dwindles to about $.06 per gallon by the end of 1977. (Prices would have been rising in 1977 even if controls were continued, because controlled old oil naturally was replaced by higher-priced new oil.)

Only part of the total effect of higher oil prices on the aggregate price indices can be directly accounted for by higher energy costs. As energy costs raise the consumer prices of goods and services, workers find the purchasing power of their wages eroded. They then try to recoup at least part of this loss by demanding higher wages. CBO estimates decontrol would result in a wage rate increase of about 0.5 percent. Given that prices would be nearly 2 percent higher, real wage rates (that is, wages corrected for price increase) would fall by nearly 1.5 percent in spite of the wage increases.

Immediate decontrol would set in motion a rather complex chain of events in the financial markets. The precise channels are described in the next section of this chapter; Table 9 summarizes CBO's estimate of the financial reverberations from decontrol's estimated net impact on the interest rate on three-month Treasury bills. It will be noted that the upward pressure on interest rates peaks in late 1976, and is receding thereafter.

How Decontrol Affects the Economy

The preceding section summarized CBO's estimates of the effects of immediate decontrol without explaining the mechanisms by which the shock of higher oil prices is transmitted to the national economy. This section explains the linkages between higher oil prices, higher prices generally, changes in spending by consumers and by oil companies, and financial market changes.

The effects of higher oil prices on the aggregate price indices are the easiest to reckon. Table 10 details CBO's assumptions about the behavior of refiners' acquisition costs of crude oil between now and the end of 1977. As explained earlier, a $1.50 OPEC increase and removal of the import duty is assumed in either case. It will be seen that the maximum effect on crude oil prices would amount to just less than $3.00 and would be felt in the middle of 1976.

How much does a $3.00 per barrel increase in the price of crude oil contribute to the aggregate price indices? This calculation can be made in two simple ways. Given total domestic consumption of crude oil (including natural gas liquids) of about 5.3 billion barrels per year (about 14.5 million barrels per day), the nation's oil bill would rise

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TABLE 10--EXPECTED REFINERS' ACQUISITION COSTS OF CRUDE OIL UNDER CONTROLS AND DECONTROL
(dollars per barrel)

Quarter	Imported Oil	Average Domestic Oil		Average of All Oil	
		with Controls	with Decontrol	with Controls	with Decontrol
1975:II	$13.44	$8.30	$ 8.30	$ 9.84	$ 9.84
1975III	13.61	8.54	8.92	10.08	10.35
1975:IV	13.52	8.68	10.56	10.17	11.47
1976:I	14.27	9.19	12.16	10.77	12.81
1976:II	14.27	9.31	13.56	10.88	13.78
1976:III	14.27	9.39	13.72	10.96	13.89
1976:IV	14.27	9.48	13.72	11.04	13.89
1977:IV	14.27	9.79	13.72	11.32	13.89

Source: Congressional Budget Office.

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by about $16 billion per year. If output were unchanged, the general price level (GNP deflator) would be about 1 percent higher.

The effect of an increase of $.069 per gallon in the price of petroleum products also can be traced. The most recent data from the U.S. Bureau of Labor Statistics show that the average retail price of a gallon of regular gasoline is $.591. Other petroleum products, which are less expensive to refine and which are taxed less heavily, bear far lower prices. If by the second quarter of 1976, the average price per gallon of all petroleum products were $.59 with controls in force, then the $.069 increase would represent a 13.8 percent increase. Gasoline, motor oil, and home-heating oil alone have a weight of approximately 4.5 percent in the Consumer Price Index. Considering the indirect effects on transportation costs, petrochemical products, and the cost of generating electricity, the total direct effect of oil in the CPI is probably about 8 percent. A 13.8 percent rise in 8 percent of the index implies a 1.1 percent rise in the entire CPI--a number that agrees remarkably well with the preceding one.

Of course, this first round of price increases would be magnified somewhat by induced increases in other energy prices, although prices of competing fuels might take some time to react. For example, under the assumptions detailed in the next section of this chapter, CBO estimates that the induced rise in the price of unregulated natural gas would add roughly $1 billion to the nation's energy bill in the fourth quarter of 1976, and $3 billion in the fourth quarter of 1977. This would add an additional 0.1 percent to the price level at the end of 1976 and 0.2 percent at the end of 1977. In addition, CBO has assumed that decontrol would cause very small and very gradual increases in the costs of other energy sources, such as coal and electricity.

Higher energy prices raise the cost of virtually every commodity and service consumed. Given the well-established tendency for wages to rise with prices, these energy cost increases probably would initiate a wage-price spiral that would magnify the initial impact of decontrol on aggregate price indices.

Since consumers cannot easily reduce their use of gasoline or heating oil when the price rises, higher fuel prices force consumers to spend more of their incomes on energy. This leaves less income to spend on other goods and services, so the demand for other products drops and real output and employment fall. Offsetting this in part is the increased flow of profits to oil companies, which would result from the decontrol of oil prices. If these funds were then spent on goods and services, the employment-reducing effects of higher oil prices would be largely offset.

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Would they be spent? Tracing where the oil company profits would be likely to go is not simple. Some profits no doubt would be distributed to stockholders in the form of higher dividends. While stockholders would certainly spend some of these dividends, it is likely that much would be saved. Investment might rise, although this is somewhat doubtful since the price at which newly discovered oil can be sold would not necessarily be raised by decontrol. The remainder of the funds--which may be the great majority--probably would be used to finance planned investment projects through retained earnings rather than through loans from banks or issues of new securities. This reduced demand for corporate borrowing would, given an unchanged monetary policy, ease pressures on interest rates somewhat. With considerable lag, spending on business fixed investment and residential construction would be increased.

Overall, it seems safe to assume that during 1976 and 1977 the loss of purchasing power of consumers would reduce total spending by far more than the increased flow of funds to oil companies would increase it. Much of the drop in aggregate demand would be temporary, but "temporary" in this context could easily mean two or three years.

While it was just suggested that higher oil company profits might hold down interest rates, Table 9 shows interest rates rising. This is because higher prices would lead to reduced production in still another way. If the Federal Reserve System adhered to the same target growth rate for the money supply despite the higher prices caused by decontrol, the real value of the money supply (the money stock deflated by some broad price index) would decline. This would tighten credit conditions--countering and perhaps overwhelming the increased flow of corporate profits. With the usual lags, real output and employment would be depressed.

CBO's estimates suggest that the implied reduction in the real money stock would have stronger effects on the financial markets than would the improved corporate liquidity picture within the time frame considered, so that the net effect would be to push interest rates upward. Once again it should be noted that this tightening of credit markets should be a temporary phenomenon: as decontrol hampered the recovery, lowering real output, the need for cash balances would be reduced. Interest rates should then be able to recede to the levels they would have attained in the absence of decontrol. But, once again, temporary effects are the ones which would dominate in 1976 and 1977 and higher interest rates in those years would mean a scaling down of business plans for fixed investment, with corresponding harm to the recovery.

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Assumptions Underlying the Analysis

Measuring the economic impact of decontrol requires a number of explicit assumptions about the probable behavior of the various agents involved: the OPEC nations, oil companies, oil consumers (including households and businesses), the U.S. Government, and perhaps even the U.S. Supreme Court. These assumptions can be no more than educated guesses, and different assumptions lead to different estimates of the importance of decontrol.

This section details the assumptions underlying CBO's analysis, explaining the reasoning behind each, and how alternative assumptions might alter the conclusions.

The Price of Imported Oil. Decontrol would permit the price of old oil--now fixed at $5.25 per barrel at the wellhead--to float up to the world market price. CBO's assumptions about the future price of imported oil--based on elimination of the special $2.00 per barrel tariff and a $1.50 per barrel increase in OPEC prices--are spelled out in Table 10. CBO's analysis assumes that the special import duties would end whether or not price controls end. This should not be interpreted as a prediction, but rather as a device to separate the impact of decontrol from the impact of removing the tariff. If the tariff were to remain on the books, the impact of decontrol would be substantially greater.

The Reaction of Domestic Oil Prices. Given the path for imported oil prices displayed in Table 10, what would happen to domestic oil prices under decontrol?

It is conceivable that old oil prices would rise immediately to parity with domestic uncontrolled oil. CBO does not expect this to happen for two reasons. First, the decontrol debate may not reach final resolution for several more months. Major oil companies presumably wish to avoid the disruption in their marketing activities that would be caused by raising the price of old oil for a brief period and then being forced to reduce prices if new controls were established. The fact that domestic crude oil prices have not skyrocketed since controls expired on August 31 is in accord with this view. Second, the depth of the current recession does not make this a propitious time for a sharp rise in the price of gasoline.

But these arguments support only a delay in the price rise, not its elimination or even reduction. Under the current system, the OPEC cartel dictates the world price of crude oil. American crude oil can remain cheaper only under price and export controls.

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CBO has assumed that immediate decontrol would mean the end of the two-tier system of oil pricing, but that the new uniform price of domestic crude oil would rise only gradually from the current blend price. Specifically, it is assumed that wholesale prices of refined petroleum products would reflect the full $.07 per gallon increase only in May, 1976, and retail prices would lag very slightly behind that. If this assumption errs, it is probably by exaggerating the time it would take for prices to rise. Shortening the period of the price increase would somewhat magnify the macroeconomic effects.

Another important issue is involved in translating price rises for crude oil into price rises for petroleum products at the wholesale and retail levels. While price controls are in effect, wholesale and retail dealers are limited to strict penny-for-penny passthroughs of crude oil costs. As a result, profit margins per gallon are about the same now as they were in late 1973, and represent considerably less purchasing power given the inflation since then. If price controls expire, the question is open whether the free market would enforce penny-for-penny cost passthroughs as the Federal Energy Administration now is doing. If wholesale and retail dealers tried to reestablish the percentage markups at 1973 levels, the price increase at the retail level could amount to $.11 to $.13 per gallon instead of the $.07 per gallon increase assumed by CBO.

Price Rises for Other Energy Sources. Assumptions must also be made about price movements for competing energy sources if controls on domestic oil are eliminated. CBO's analysis assumes that coal prices would hardly be affected by the increased price of crude oil. No one knows whether this optimistic assumption will prove to be true, but there are several reasons for making it; principally, that the coal industry now has considerable excess capacity, and that coal competes primarily with residual fuel oil, which is selling very near the world price even with controls.

Natural gas poses a much knottier problem. Gas in the interstate market is regulated at several levels, and cannot react to higher oil prices unless regulations are eased. Holding down the price of natural gas without creating severe shortages becomes more and more difficult as oil prices rise. While it is thus conceivable that decontrol of oil prices would force some relaxation of price controls on natural gas, CBO has not factored such an event into its calculations. The current system for regulating natural gas is assumed to remain intact through the end of 1977 whether or not oil prices rise.

However, a free market exists in intrastate natural gas, and it is likely that some price reaction will be seen in this market. CBO has assumed that prices of natural gas in the intrastate market would move in response to higher oil prices, but that the movements would lag far

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behind the oil price increases. Specifically, CBO's analysis of decontrol assumes that within eighteen months after any increase in the price of crude oil, the prices of approximately one-quarter of the natural gas consumed in this country would have risen by roughly two-thirds as much as oil on a BTU basis. This implies that natural gas prices would be about 23 percent higher by the end of 1977 if controls end than if controls remain. It is possible that this exaggerates the reaction of natural gas prices. But the dollar magnitudes are so small relative to those for the oil bill that even complete elimination of the assumed corresponding changes in natural gas prices would not change the economic impacts given in Table 9 very much.

Windfall Profits. CBO's analysis of decontrol assumes no change in government policies beyond decontrolling oil prices itself. One change often discussed in connection with decontrol is a windfall profits tax, or a special tax on oil producers that is based on the amount by which the wellhead prices of old oil rise above the $5.25 ceiling. Most windfall profits tax proposals include "plowback" provisions that return some of the tax revenues to oil producers in proportion to their investment outlays.

A windfall profits tax would not change oil prices to consumers, but would transfer some of the profits from oil companies to the U.S. Treasury. The U.S. Government would borrow less and oil companies would borrow more, with little net effect on credit markets. If the government returned some of these revenues to corporations, the federal deficit would be larger, but the cash flow to corporations would be correspondingly greater. The plowback could have significant macroeconomic effects only if it induced additional investment, or if most of it were paid out to stockholders in the form of higher dividends. As explained earlier, CBO would not expect much stimulus to aggregate demand from these sources during 1976 or 1977.

Tax Offsets to Decontrol

If the government chose to return part or all of the increased oil bill, through tax cuts to consumers, the effects on output and employment would be blunted, and might even be entirely eliminated. However, restoration of consumer purchasing power could slightly exacerbate the original inflationary impact of the higher oil prices, and add somewhat to the wage-price spiral. This section estimates the size and form of the personal income tax reductions that would be necessary to offset the effects of decontrol on real output, and the additional inflation these tax cuts would cause.

A series of very substantial tax cuts would be required to restore the levels of real GNP projected in Table 4 if oil price controls were

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to be dropped immediately. CBO estimates that a reduction in withholding rates amounting to approximately $15 billion to $17 billion initially (and increasing as the economy grows) sometime in the fourth quarter of 1975 and/or the first quarter of 1976 would be necessary to offset the direct effect of higher oil prices.

While this would return roughly the entire increase in the fuel bill to consumers, it would not be sufficient to cancel the entire contractionary impact of decontrol. The wage-price spiral induced by decontrol would be a further drag on the economy during 1976 and 1977. CBO estimates that small tax cuts, amounting in total to perhaps $8 billion to $10 billion and distributed among the remaining three quarters of 1976 would cancel out these additional indirect effects of decontrol on real output.

Naturally, this much fiscal stimulus would exact some price on the inflation front. CBO estimates that this fiscal package would add a negligible amount to the inflation rate in 1976, approximately 0.2 percentage points to the inflation rate in 1977, and about 0.3 in 1980.

The cost to the federal budget deficit could be reduced if the Federal Reserve System supplied more money. As has been explained, decontrol would push interest rates up somewhat initially by reducing the real value of the money supply by more than it reduced real output. However, the substantial tax cuts that would be required to offset the effects of decontrol on real output would push interest rates up still higher. CBO has therefore investigated a combined fiscal-monetary offset to decontrol in which the Federal Reserve System would supply enough money to prevent any rises in interest rates. If the Federal Reserve System were willing to accommodate both decontrol and fiscal policy in this way, CBO estimates that the initial tax reduction in late 1975 or early 1976 would have to be only about $10 billion to $13 billion; the remaining tax cuts distributed throughout 1976 would have to amount only to $6 billion to $9 billion. The long-run inflationary consequences of this combined fiscal-monetary package would be approximately the same as those of the tax offsets alone.

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