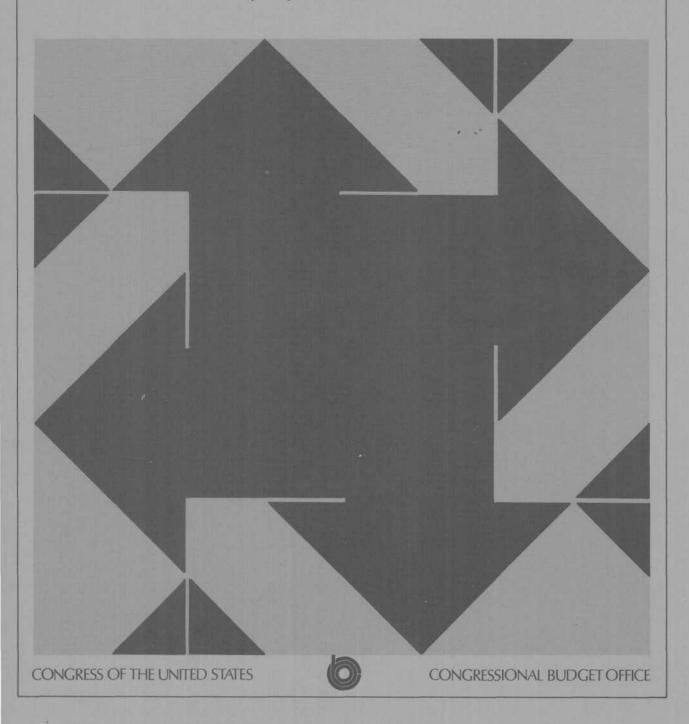
THE ECONOMIC OUTLOOK

A Report to the Senate and House Committees on the Budget —Part II

As Required by Public Law 93-344



THE ECONOMIC OUTLOOK

A Report to the Senate and House Committees on the Budget

PART II

The Congress of the United States Congressional Budget Office

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PREFACE

The Congressional Budget Office is required by Section 202(f) of The Congressional Budget Act of 1974 (Public Law 93-344) to submit an annual report to the Senate and House Committees on the Budget. This year, the report is in two portions: Budgetary Strategies for Fiscal Years 1979-1983 and The Economic Outlook.

The Economic Outlook is one of a series of reports on the state of the economy issued periodically by the Congressional Budget Office. This report presents CBO's view of the short-run economic outlook with no change in fiscal and monetary policies now in force, as well as with selected alternative fiscal policies. In accordance with CBO's mandate to provide objective analysis, the report contains no recommendations. It was prepared by George Iden, Cornelia Motheral, Helmut Wendel, Nancy Morawetz, Michael Owen, Marvin Phaup, Toni Gibbons, Richard Stromberg, Rebecca Summerville, and other members of the Fiscal Analysis staff, under the direction of Bill Beeman. Patricia H. Johnston and Marion F. Houstoun edited the manuscript. Special recognition goes to Debra Blagburn, Dorothy J. Kornegay and Marsha Mottesheard for their skill in typing the many drafts.

Alice M. Rivlin Director

February 1978

CONTENTS

		Page
REFACE	• • • •	iii
IMMARY	••••	хi
MAPTER I. THE OUTLOOK UNDER CURRENT POLICY	••••	1
Recent Economic Trends	sion	8 10 11 13 15
Fiscal Policy		16 18 18 18 20 23 23
AAPTER II. EXPANSIVE FISCAL POLICY MEASURES AND ALTERNATIVE ECONOMIC PROJECTIONS	••••	27 28 29
Illustrative Fiscal Stimulus Packages Other Fiscal Measures		35 39
Monetary Policy		40
PPENDIX A. EFFECTS OF THREE BUSINESS TAX CHANGES: SIMULATION BY THREE MACROECONOMIC MODELS		47
PPENDIX B. THE EFFECTS OF CHANGES IN TAXES AND PUBLIC SERVICE JOBS PROGRAM		51

TABLES

*		Page
TABLE 1.	FULL EMPLOYMENT BUDGET UNDER CURRENT POLICY ASSUMPTIONS	19
TABLE 2.	ECONOMIC PROJECTIONS BASED ON CURRENT POLICY, CALENDAR YEARS 1978 AND 1979	21
TABLE 3.	ESTIMATES OF THE CBO MULTIPLIERS MODEL OF EFFECTS OF THREE FISCAL STIMULUS MEASURES HAVING A \$10 BILLION DIRECT COST	30
TABLE 4.	ALTERNATIVE ECONOMIC PROJECTIONS UNDER THREE ILLUSTRATIVE PACKAGES OF FISCAL STIMULUS	37
APPENDIX T	ABLES	
TABLE A-1	EFFECTS OF CHANGES IN BUSINESS TAXES: A COMPARISON OF RESULTS BASED ON THREE ECONOMETRIC MODELS	48
TABLE B-1	EFFECTS OF THREE EXPANSIONARY FISCAL OPTIONS, EFFECTIVE OCTOBER 1, 1978: DIFFERENCE FROM BASELINE PROJECTIONS	52



FIGURES

<u>i</u>	Page
FIGURE 1. ACTUAL AND POTENTIAL REAL GNP	2
FIGURE 2. MEASURES OF LABOR MARKET TIGHTNESS	6
FIGURE 3. MEASURES OF TIGHTNESS IN SUPPLY OF GOODS	7
FIGURE 4. MEASURES OF INFLATION IN PRICES AND WAGES	9
FIGURE 5. BUSINESS CASH FLOW, SPENDING, AND CONFIDENCE	12
FIGURE 6. RATIO OF BUSINESS INVENTORIES TO BUSINESS FINAL SALES	14
FIGURE 7. STATE AND LOCAL RECEIPTS, SPENDING, AND OPERATING SURPLUS	15
FIGURE 8. EXPORTS AND IMPORTS	17
FIGURE 9. BUSINESS FIXED INVESTMENT AS A PERCENT	32

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If the Congress were to adopt a fiscal year 1979 budget that simply continued current tax and expenditure policies, the resulting slowdown in the economic expansion would prevent a further decline in unemployment. CBO's current policy forecast (shown in the following table) projects only a moderate growth (3.5 to 4.5 percent) in real GNP between the end of 1977 and the end of 1978, and an even lower rate (2.4 to 3.9 percent) during 1979. Both rates fall markedly below the 5.7 percent rate at which the economy grew during 1977.

SUMMARY OF ECONOMIC PROJECTIONS, CALENDAR YEARS 1978 AND 1979, WITH CURRENT POLICY ASSUMPTIONS

Economic Variable	1976:4 to 1977:4 (Actual)	1977:4 to 1978:4	1978:4 to 1979:4
GNP (current dollars, percent change)	11.9	9.4 to 11.5	8.2 to 10.9
GNP (1972 dollars, percent change)	5.7	3.5 to 4.5	2.4 to 3.9
General Price Index (GNP de- flator, percent change)	5.9	5.7 to 6.7	5.7 to 6.7
Unemployment Rate, end of period (percent)	6.6	6.0 to 6.5	6.1 to 6.6

The projected lower growth would mean little progress in reducing unemployment. CBO estimates, in the absence of policy change, that the unemployment rate would decline slightly from its current level to between 6.0 and 6.5 percent by the end of 1978, and would change little or even edge back up in 1979.

At the same time, CBO sees little prospect for a reduction in inflationary pressures, even in the face of reduced economic growth during the next two years. Inflation rates are expected to be in the 5.7 to 6.7 percent range in both 1978 and 1979—about the same as the increase in nonfood prices during 1977.

Slower economic growth can be expected in large part because the federal budget will itself exert a restrictive effect on the economy, if current policies are not changed. One useful measure of the economic impact of the budget is the change in the full-employment budget—the receipts and outlays that would occur if the economy were operating at full employment (arbitrarily defined as a 4.9 percent unemployment rate). CBO estimates that, on a full-employment basis, the current policy budget would move from an \$18 billion deficit in fiscal year 1978 to a \$3 billion surplus in fiscal year 1979. That \$21 billion shift in a restrictive direction is primarily attributable to:

- o Reduced spending growth, under current policy,
- o Legislated increases in social insurance taxes that take effect in January 1979, and
- o Increases in effective personal income tax rates because of the interaction of continued high rates of inflation and the progressive tax structure.

Other factors are also expected to contribute to slower economic growth by late 1978. Single-family housing starts rose to record levels during the current expansion; they are expected to remain strong in the near term but to recede significantly later in 1978, as a result of higher interest rates and reduced savings flows. Consumer spending during this recovery has also been boosted by the willingness of households to reduce their saving rates. But most economic forecasters believe that the downward movement in the saving rate has ended; this would also slow growth in aggregate demand. Recent surveys of business spending plans likewise indicate a planned deceleration in capital goods outlays in 1978.

The current economic recovery began in the spring of 1975, almost three years ago. It is not unusual for economic growth to slow this late in a business cycle expansion. In fact, an uninterrupted continuation of economic growth through 1979 would make the current expansion the longest peacetime expansion in the United States in over a century.

Critical Assumptions

The accuracy of the current policy forecast hinges in part on whether CBO's assumptions regarding monetary policy and the resulting projections of credit market conditions are reasonably correct. A further increase in short-term interest rates is projected for 1978, but it is expected to be moderate enough to avert the stringent credit conditions that generate a widespread movement of funds from thrift accounts into higher-yielding short-term market instruments. If interest rates should rise substantially, however, the current policy forecast for 1978 would be much less favorable, because of their adverse impact on residential construction and business investment spending.

CBO's assumption of only a moderate additional rise in interest rates is estimated, given current fiscal policy, to be roughly consistent with growth at around 9 percent a year in the broadly defined money supply (M2)—the upper end of the Federal Reserve Board's announced target range for this monetary aggregate.

Room For Expansion and the Threat of Inflation

Inflation remains high; but inflationary pressures, at the moment and for the projected period, do not appear to arise from excessive demand. The economy still has a significant amount of unused resources, both labor and capital. The unemployment rate averaged 6.6 percent in the final quarter of 1977. Given the current composition of the labor force, this is probably some 1 to 1.5 percentage points above the rate that is generally thought to indicate a tight labor market. Measures of physical capacity in manufacturing likewise suggest that plant and equipment are still not fully utilized. Thus, the economy still appears to be capable of achieving economic growth somewhat in excess of the long-term potential growth rate (estimated at about 3.5 percent per year) without generating substantial added inflationary pressures induced by an overheated economy.

Alternative Fiscal Policies

CBO has examined and estimated the macroeconomic effects of several possible alternatives to current fiscal policy. Three

xiii

alternative projections, shown in the table below, assume one of the following illustrative stimulus packages:

- o A \$24 billion permanent tax cut, beginning in October 1978 and consisting of a \$17 billion-a-year reduction in personal income taxes and a \$7 billion reduction in business taxes. The business tax reduction is about equally divided between a retroactive increase in the investment tax credit and a cut in corporate income tax rates;
- o A smaller but earlier tax cut, beginning in July 1978 and involving a similarly comprised \$15 billion revenue loss (\$11 billion personal taxes and \$4 billion business taxes); and
- o A \$30 billion package beginning in October 1978 and consisting of the \$24 billion reduction in taxes described above as well as a \$6 billion increase in spending, \$2 billion for public service jobs and \$4 billion for various other programs.

Each stimulus package would increase economic growth in 1979 at the price of some inflation.

Case 1. The first illustrative set of policies, involving a \$24 billion tax cut, is estimated to add more than \$30 billion to current dollar GNP by the end of calendar year 1979. The inflation effect would build up later than the effects on real activity, but by the end of 1980 this tax cut would increase the price level by about 0.3 percent. GNP growth in constant dollars is expected to be about 1 percent higher by the end of 1979. This improvement in real economic growth should allow moderate further progress in reducing unemployment: the unemployment rate would be in a 5.7 to 6.2 percent range toward the end of 1979.

Case 2. The second package has a small expansive effect in 1978, as the earlier effective date helps to maintain momentum at year-end. It would have the least impact on inflation; however, its economic impact in 1979 is substantially smaller. Growth in real GNP is estimated to be about 0.5 percent higher during 1979 than under current policy. The unemployment rate would probably be in the 5.8 to 6.3 percent range in the last quarter of that year. The earlier effective date of this option would require

Economic Variable	Case 1: \$24 Billion Tax Cut	Case 2: \$15 Billion Earlier Tax Cut	Case 3: \$30 Billion Tax Cut and Spending Increase
Fou	rth Quarter of C	alendar Year 1978	3
GNP (current dollars, percent change) <u>a</u> /	9.8 to 11.9	9.8 to 11.9	9.9 to 12.0
GNP (1972 dollars, percent change) <u>a</u> /	3.9 to 4.9	3.9 to 4.9	4.0 to 5.0
Unemployment Rate (percent)	6.0 to 6.5	5.9 to 6.4	5.9 to 6.4
Fou	rth Quarter of C	alendar Year 1979)
GNP (current dollars, percent change) <u>a</u> /	9.3 to 12.0	8.9 to 11.6	9.7 to 12.4
GNP (1972 dollars, percent change) <u>a</u> /	3.4 to 4.9	3.0 to 4.5	3.8 to 5.3
Unemployment Rate (percent)	5.7 to 6.2	5.8 to 6.3	5.4 to 5.9
Fou	orth Quarter of C	alendar Year 1980)
Change in Price Level, GNP Deflator (percent)	0.2 to 0.4	0.15 to 0.35	0.4 to 0.6

a/ Percent change is percent change from four quarters earlier.



reconsideration of the Second Concurrent Resolution on the Budget for Fiscal Year 1978.

Sae 3. The last illustrative package, involving more than \$30 billion direct cost, would generate about 1.5 percent additional growth during 1979, as compared to the current policy forecast. By the end of that year, the unemployment rate would be in the 5.4 to 5.9 percent range. The impact on inflation is more substantial than the other two options, with the price level raised by about 0.5 percent by the end of 1980.

This is a very difficult time to develop a sound strategy for federal fiscal policy. The economy is suffering from both high unemployment and rapidly rising prices. If nonfederal demands turn out to be significantly stronger than CBO forecasts, fiscal or monetary stimulus could push the economy toward full employment at too rapid a pace, thereby intensifying existing inflationary pressures. On the other hand, if the momentum of the economy is less than that forecast by CBO, unemployment rates would rise to even higher levels in the absence of stimulus. The budgetary process provides the Congress with an opportunity to review its decisions at the time of the second concurrent resolution, when more information about the economy will be available. Given the high level of uncertainty in the economic outlook, the Congress should be aware that it might want to make adjustments in fiscal policy at that time.

If current fiscal and monetary policies remain in force over the next two years, the CBO forecast, presented later in this chapter, shows a slowdown in economic growth late in 1978 and during 1979. That "current policy" CBO forecast estimates growth of real GNP in the 3.5 to 4.5 percent range during 1978, slowing to a 2.4 to 3.9 range during 1979. The unemployment rate is expected to edge down to a 6.0 to 6.5 percent range by the end of 1978, but not to improve thereafter. Despite reduced growth rates, the rise in prices in 1978 and again in 1979 is expected to range from 5.7 to 6.7 percent.

The first section of this chapter examines recent economic trends and the current state of the economy. A section on expected federal fiscal policy under current policy assumptions follows. The last section identifies the major assumptions that underlie the current policy forecast and the sources of uncertainty in the economic outlook.

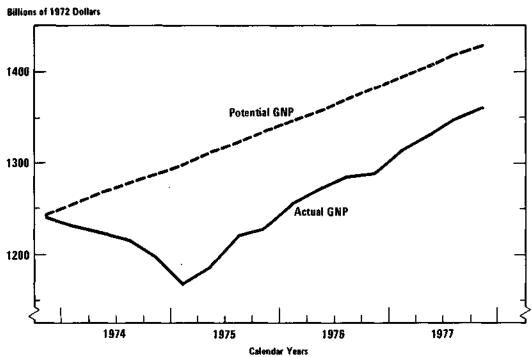
RECENT ECONOMIC TRENDS

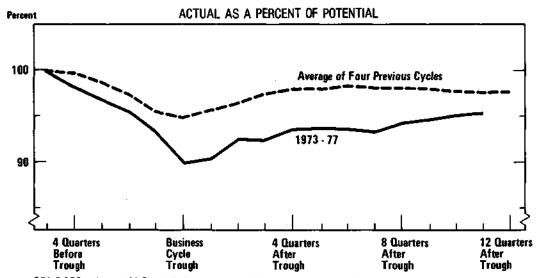
The economic expansion that began in April 1975 is now approaching the end of its third year. Yet idle resources in the economy are still large, as the lower panel of Figure 1 indicates. In that respect, the current recovery has been disappointing. It has not, however, developed the imbalances that would suggest a cyclical peak is imminent.

GNP in constant dollars increased by about 5.7 percent during 1977, considerably above the long-term potential growth rate. This led to a sizable reduction in unemployment, from 7.8 percent of the labor force in the fourth quarter of 1976 to 6.6 percent in the fourth quarter of 1977. The inflation rate seemed to moderate for a time late in 1977, but this was largely due to a (probably temporary) slowdown in food prices. There does not appear to have been an improvement in the underlying inflation rate, now around 6 percent.

1

Figure 1. Actual and Potential Real GNP





SOURCES: Actual GNP - U.S. Department of Commerce, Bureau of Economic Analysis.

Potential GNP — Council of Economic Advisers, Economic Report of the President, 1977.

NOTES: The business cycle trough is the last quarter of recession, as designated by the National Bureau

of Economic Research.

Cross-Currents in the Economy

At the end of 1977, there were conflicting signals as to the trend of economic activity. Although growth in real GNP became progressively slower during 1977, final sales, particularly consumer spending, strengthened as the year ended. Lean inventory stocks provided reason to expect continued gains in output in the near term. Gains in employment, hours, and earnings bolstered personal incomes. The unemployment rate fell in December 1977 to a surprisingly low 6.4 percent. New orders for durable goods, especially capital goods, appeared strong at year-end.

There were, however, several disquieting signs: businesses were planning smaller increases in capital spending in 1978 than in the preceding year; automobile and other retail sales in early January appeared disappointing; the stock market was weak; residential construction seemed threatened by rapidly rising interest rates, which were already reducing savings flows at thrift institutions (savings and loan associations and mutual savings banks); and increases in social insurance taxes (and possibly energy taxes) were expected to reduce growth in spendable earnings.

Those tax increases were also expected to add to business costs and hence to inflation, in spite of continuing underutilization of labor and capital. Higher minimum wages in 1978 were similarly expected to put pressure on costs. The end of 1977 also saw upturns in crude materials prices, both food and nonfood, and signs of a possible acceleration in the rate of wage increase.

These cross-currents emerging at the beginning of 1978 suggest two major questions about the state of the economy. First, is the economy developing the kinds of strains, imbalances, and high rates of utilization that often lead to recession? Second, what are the indications of future changes in demands by the major spending sectors?

Inflation and the Capacity for Economic Expansion

As an economic expansion approaches the potential output of the economy, there is a substantial risk that demand will outrun capacity. If this should happen, the resulting bottlenecks and inflationary pressures (as well as restrictive fiscal and monetary policies adapted to restrain inflation) can quickly generate conditions in the private economy that lead to a downturn. It is important, therefore, to monitor capacity measures for signs of impending tightness in labor markets and in industrial resources, and to avoid stimulative fiscal and monetary policies when warning signs appear.

Much evidence suggests that productive resources are still not being used at an intensive rate. While overall unemployment rates have declined substantially from the recession highs, there is still considerable slack in labor markets. True, labor markets may be tighter than the overall unemployment rate suggests; but that unemployment rate remains well above the 5.0 to 5.5 percent range thought by many to be associated with tight markets, given the composition of the present-day labor force. For some groups of workers and geographic areas, unemployment is a very heavy burden. For blacks and residents of poverty sections of metropolitan areas, unemployment rates are far above average, with the unemployment rate for black teenagers so high (38 percent) that a very substantial problem is expected to remain, even when other groups are fully employed.

One indicator of overall labor-market pressure that might seem to suggest that the economy may now be near its potential is the employment/population ratio, which has recently reached a new high. But labor-force participation has been increasing in the United States since the mid-1960s, and most of the increase represents a genuine rise in labor supply. Thus the higher employment/population ratio reflects an increase in labor supply as well as an increase in labor demand; it does not necessarily imply excess demand for labor.

Tight labor markets would be evidenced by high levels of vacancies relative to the pool of unemployed and by high quit rates, as employees take advantage of attractive job offers elsewhere. Labor bottlenecks would show up as very low unemployment rates for skilled workers. For industry, tight capacity utilization is generally thought to be characterized by a Federal Reserve manufacturing utilization rate above 87 percent. Capacity bottlenecks would be evidenced by reports of materials shortages and high rates of utilization at materials industries.

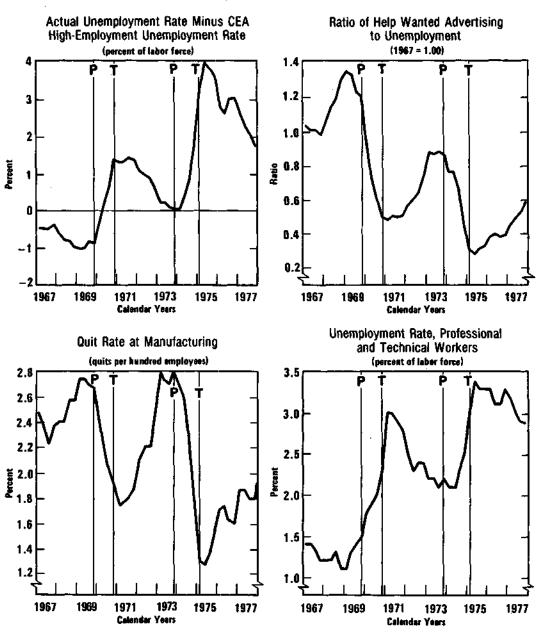
Current labor-market and industrial capacity utilization measures do not appear to meet those conditions. Figures 2 and 3 indicate that:

- o The unemployment rate remains high relative to the Council of Economic Advisers' estimate of the rate comparable with 4.0 percent in 1955 1/3;
- o The ratio of help-wanted advertising to unemployment and the manufacturing quit rate are both below earlier boom levels;
- Unemployment rates are also relatively high for professional and technical workers;
- o Capacity utilization appears to be well below boom levels for all manufacturing and for materials—indeed, it remains below the level that would encourage a significant expansion of spending for new capacity;
- o Unfilled orders are not high relative to shipments at durable goods manufacturing industries, and reports of shortages are relatively modest.

Further indications of a substantial labor reserve can be found in the Bureau of Labor Statistics data on discouraged workers, who are excluded from unemployment statistics since they are not actively seeking jobs. In the fourth quarter of 1977, nearly a million persons wanted jobs but were not seeking work because they felt no jobs were available. This number represented nearly 1 percent of the actual civilian labor force. In addition, 3.3 million workers reported that they were working part-time at the end of 1977 because they could not find full-time employment. Such part-time workers represented 3.7 percent of all nonagricultural employees, as compared with under 3 percent in earlier boom periods.

This CEA estimated high-employment unemployment rate is adjusted for the changing proportion of young persons and women in the labor force and for the increase in youth unemployment relative to adults. It was 4.4 in 1967 and 4.9 in 1977.

Figure 2. Measures of Labor Market Tightness

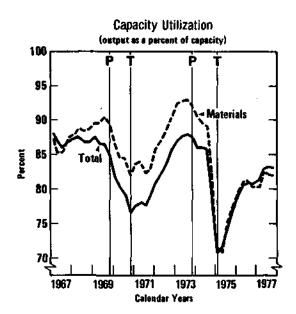


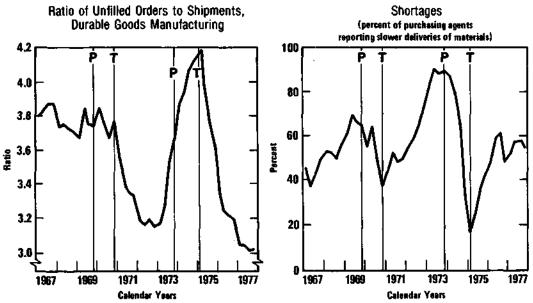
SOURCES: Bureau of Labor Statistics, Council of Economic Advisers, Bureau of Economic Analysis.

NOTES:

P= business cycle peak A As designated by the National A = business cycle trough A Bureau of Economic Research.

Figure 3. Measures of Tightness in Supply of Goods





SOURCES: Board of Governors of the Federal Reserve System, Bureau of Economic Analysis.

NOTES: P = business cycle peak] As designated by the National

T = business cycle trough | Bureau of Economic Research.



Another indicator of capacity constraints and cost and price pressures would be an ending of gains in productivity. Data for the fourth quarter of 1977 now indicate a 2.7 percent increase over last year in output per hour worked in the nonfarm business sector—an increase near the trend rate for the 1948-1972 period. That increase tends to confirm other evidence that the economy is not approaching capacity constraints.

The measures of price change shown in Figure 4--nonfood wholesale and retail prices--show little change over the past year in the underlying rate of inflation. But the wage index does suggest a possible acceleration in wage costs.

In sum, considerable slack still exists in labor markets, but it is decreasing rapidly. Industrial capacity utilization rates were flat in late 1977, but may rise in early 1978 as businesses rebuild inventories. Nevertheless, utilization of labor and capital is expected to remain below the levels that would signal tight markets. Much of the inflationary pressure arises from other factors, such as the recent decline in the value of the dollar, and legislated increases in the minimum wage and in social insurance taxes on employers. Thus, further expansion of output somewhat above trend for the next few years now seems to be possible without generating tight labor markets or pressures on manufacturing capacity.

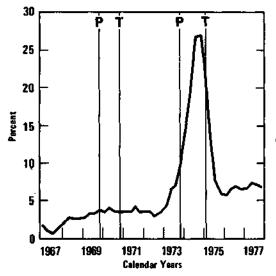
What are the prospects for a growth in demand that would support an expansion in output? To assess those possibilities, the remainder of this chapter looks at recent developments and prospects for major sectors of the economy.

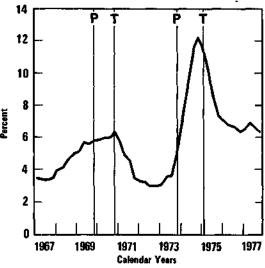
Consumer Spending

Spending for personal consumption—the largest component of GNP—has been one of the strong elements in the 1975—1977 recovery. Real consumer spending increased at a 5.5 percent average annual rate. Consumption spending has risen faster than incomes, as the saving rate declined from 7.3 percent in 1974 to 4.7 percent in the first half of 1977. During that period, several temporary factors—including unusually cold weather and the catch—up in purchases after an auto strike—combined to produce a very high level of spending relative to after—tax income. Saving in the second half of 1977 rose to 5.6 percent of disposable income, more than earlier in the year but still below the longer—term average. A further boost to consumption via a sustained decline in the saving rate now seems unlikely.

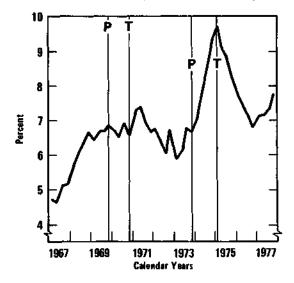
Figure 4. Measures of Inflation in Prices and Wages

Rate of Change in Industrial Commodities Prices: Percent Change from 4 Quarters Earlier Rate of Change in Consumer Prices, Excluding Food: Percent Change from 4 Quarters Earlier





Rate of Change in Wages: Percent Change from 4 Quarters Earlier in Adjusted Hourly Earnings Index



SOURCE: E

Bureau of Labor Statistics.

NOTES:

 $\begin{array}{ll} P = \mbox{ business cycle peak } \\ T = \mbox{ business cycle trough} \end{array} \begin{array}{ll} \mbox{ As designated by the National } \\ \mbox{ Bureau of Economic Research.} \end{array}$

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Associated with the decline in the saving rate has been an expansion in consumer and mortgage debt. Has the personal debt burden become too high? If so, some further rise in the saving rate might be expected, particularly if there should be a slowdown in income growth.

The evidence on consumer debt burdens is mixed. Latest data on personal credit difficulties, such as loan delinquencies, show no tendency toward increased financial distress. But consumer repayments of installment debt have risen rapidly relative to personal disposable income, although the repayment/income ratio is still lower than it was in the 1960s and early 1970s. The total volume of installment debt is likewise rising rapidly relative to income, and is approaching the previous high of early 1974.

Taking a broader look at the consumer balance sheet, total financial assets of households, which include common-stock holdings, have been declining relative to total debt since early 1976, and this ratio is markedly lower than it was in the 1960s and early 1970s. In contrast to financial assets, the value of owner-occupied homes has increased remarkably and the actual and anticipated capital gains on homes appear to have been a factor sustaining high levels of consumer spending. Home mortgage debt has been rising faster than net investment in single-family housing, indicating that consumers may have been financing consumption spending by using the capital gains generated by rising values. When, and whether, this boost to spending will come to an end is difficult to tell.

The evidence on consumer sentiment at the end of 1977 was mixed: while the Michigan Survey Research Center found declining optimism in November and December, the Conference Board reported a sharp rise in December.

Housing

Construction of housing typically strengthens early in a recovery; the 1975-1977 period was no exception. Single-family housing starts have reached record highs, and multi-family starts have recovered about half of their precipitous recession losses. In the fourth quarter of 1977, housing units were started at a 2.2 million annual rate. Prices of new single-family houses seem high relative to average incomes, but so far sales have remained high, at least in part because owner-occupied housing provides a tax

shelter and an attractive inflation hedge. Multi-family construction showed no sign of overbuilding, since vacancy rates remained low.

Yet the housing sector is not expected to contribute significantly to economic growth over the next few years. Continued increase in multi-family housing construction is expected, but it is likely to be offset by declines in single-family activity later in the year, given present and expected interest rates. The rate on three-month Treasury bills has risen from lows of around 4.3 percent in late 1976 to 6.5 percent in mid-January 1978. That rise has already caused some slowdown in savings flows to thrift institutions, which dominate the financing of single-family dwellings, and further interest rate increases may reduce flows still more. As of November 1977, savings and loan associations maintained high levels of lending only by borrowing and reducing their liquidity.

Business Fixed Investment

Investment in plant and equipment turned up late in this recovery and failed to return to pre-recession levels. Business fixed investment has been a source of strength since the end of 1975--expanding at an 8.2 percent annual rate in real terms while overall GNP rose at a 5.2 percent pace--but it has not expanded enough to generate strong gains in capacity or a complete recovery in this sector. Furthermore, the latest Department of Commerce survey of investment plans indicates a slowdown in the growth of investment spending in 1978, with planned outlays expanding 10 percent in current dollar value--perhaps 4.5 percent in real terms.

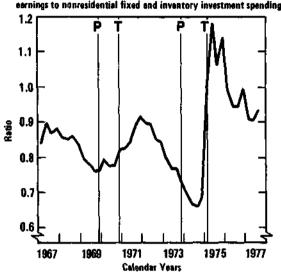
One obvious reason for sluggish investment is the continued slack in capacity utilization mentioned earlier in this chapter. There is no indication of a financial squeeze on businesses at the present time; the top chart in Figure 5 demonstrates that their internal cash flow remains high relative to the level of business spending.

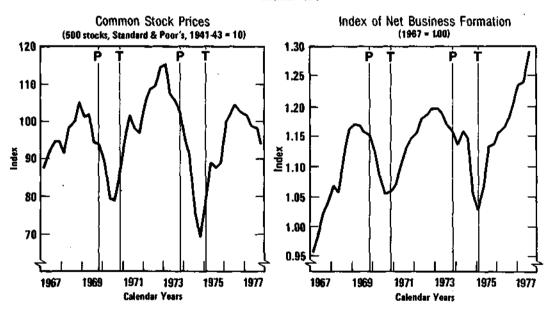
Another cause of sluggish investment is said to be weakness in business confidence. The Conference Board survey of business executives showed declining optimism about the economy late in 1977. Common stock prices, often cited as a business confidence indicator, represent aggregate investor appraisal of present and future profits prospects in the economy. When measured in early

Figure 5. Business Cash Flow, Spending, and Confidence

Ratio of Business Cash Flow to Business
Fixed and Inventory Investment

(Ratio of capital consumption allowances plus corporate retained earnings to nonresidential fixed and inventory investment spending)





SOURCE: Bureau of Economic Analysis.

NOTES: P = business cycle peak) As designated by the National

T = business cycle trough | Bureau of Economic Research.

January 1978, one broad average of common stock prices, the Standard and Poor's 500-stock average, had declined nearly 15 percent since late 1976. (Averages through 1977 are shown in the lower left panel of Figure 5.) That decline also suggests a bleak appraisal of the future. Suggested causes of the decline in confidence and stock prices include the weakness of the dollar, which may lead to reduced foreign purchase of U.S. stocks; rising interest rates, because interest-bearing instruments compete with common stocks and also because of fear of the general economic impact of interest rate increases; the uncertainty associated with inflation; concern about the adverse impact of inflation on aftertax profits; and uncertainty or pessimism about the economic impact of major federal initiatives, such as energy and tax reform programs.

Weak stock prices reduce consumer wealth and confidence, and directly reduce business investment as well, by raising the cost of equity financing and decreasing the cost of expanding via purchase of equities instead of investment in additional plant and equipment.

Yet not all stock averages tell as pessimistic a story as the Standard and Poor's and Dow Jones. Averages representing the smaller, less well-known companies traded on the American Exchange and over-the-counter have been stronger. And another indicator of entrepreneurs' confidence in the future, the index of net business formation calculated by the Bureau of Economic Analysis, is at the highest level since just after World War II. Recent data for that index, which measures the number of new minus the number of failed businesses, are shown in the lower right panel of Figure 5.

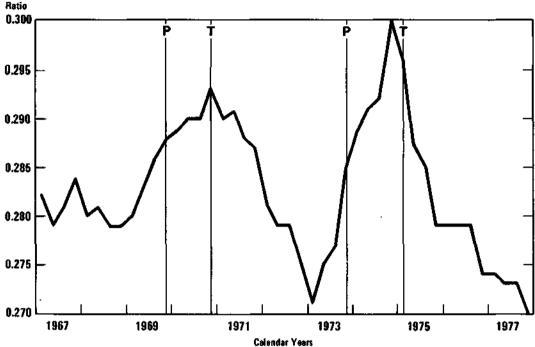
Improvements in the actual and prospective economic situation are likely to increase business investment spending. Survey estimates of 1977 spending were revised upward as the year progressed; similar revisions are possible in 1978, if fiscal stimulus is increased or final demands are stronger than expected. With current policy assumptions, however, it appears unlikely that capital spending would significantly exceed the fall survey estimates.

Inventory Investment

Current levels of inventories appear lean by traditional measures (see Figure 6), but as already pointed out, reports



Figure 6.
Ratio of Business Inventories to Business Final Sales: in 1972 Dollars



SOURCE: Bureau of Economic Analysis.

NOTES: P = business cycle peak
T = business cycle trough
As designated by the National
Bureau of Economic Research.

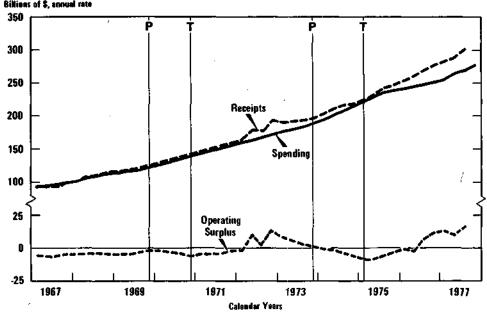
of shortages are not widespread. In this recovery, businesses have trimmed inventory investment quickly in response to short-term changes in sales. This led to uneven growth of production, but kept inventory imbalances from developing.

The classical pattern of an inventory boom is a sustained acceleration in sales, leading to attempts to rebuild stocks, rapidly rising order backlogs, and rising prices. The fact that the inventory/sales ratio now appears to be nearly as low as it was in early 1973 suggests that the economy is potentially vulnerable to such a development. Hence, rather rapid inventory building may be reported in early 1978—particularly after the coal strike is settled and coal production resumes. Nevertheless, the existence of slack in labor and capacity utilization here and in the rest of the world appears to preclude a repeat of the problems of 1973—1974; the principal consequence of an inventory boomlet under current policy would be to make the subsequent slowdown more pronounced.

State and Local Governments

Excluding federally funded employment programs, state and local government spending has provided little support to the recovery. Since 1976, their spending has risen much less than their revenues and these governments have as a group achieved a large operating surplus (see Figure 7), which has risen to a \$17 billion annual rate in the third quarter of 1977. Those surpluses have to some extent counteracted the effects of increased federal deficits—limiting both the stimulation of the economy and the upward pressures on interest rates. If expansion in the economy at large continues, some state and local governments will be able to expand total demand by slowing the rise of tax rates or by increasing spending, even while other units face continued financial problems. State and local spending accelerated in mid-1977

Figure 7.
State and Local Receipts, Spending, and Operating Surplus



SOURCE: Bureau of Economic Analysis.

as the stimulus program went into effect. Continued above-average gains are expected in 1978, with some reduction of the operating surplus.

International

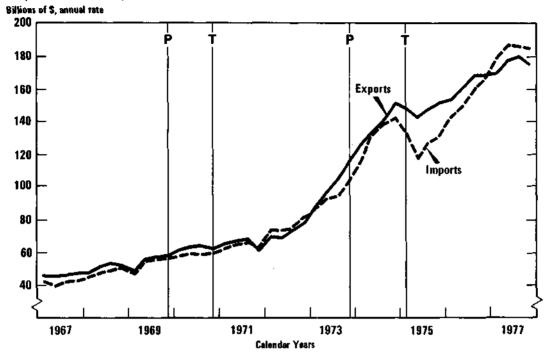
The current international trade imbalance appears to threaten continued expansion. Late in the 1974-1975 recession and early in the recovery, the United States had unprecedented surpluses of exports of goods and services over imports, which contributed to the ending of the recession and the early strength of the recovery. Imports dropped sharply in 1975, while exports remained fairly strong because countries to which the United States exports had later and shallower recessions. In addition, the foreign currency price of the U.S. dollar dropped 8.3 percent between early 1974 and early 1975, stimulating exports from the United States and discouraging imports during 1975 and 1976.

Since then, however, the trade balance has deteriorated dramatically (see Figure 8). A continued and growing surplus on services has partly offset big deficits on merchandise trade, but net exports of goods and services have gone from an all-time high surplus of \$24 billion (annual rate) in the second quarter of 1975 to a record deficit of \$11 billion (annual rate) in the fourth quarter of 1977. One reason for this deterioration is that recoveries abroad have recently slowed, as monetary and fiscal stimulation has been kept modest. Another reason is that the dollar strengthened temporarily in 1976, before its recent decline.

The outlook for foreign trade is highly uncertain. If other industrial nations show a renewal of moderate growth, U.S. export growth can be expected to pick up. That, along with the recent weakening of the dollar, may be enough to improve our net export balance gradually over the next two years, with mild positive effects on output and employment. By lessening our dependence on imports, increased flows of Alaskan oil would also have some favorable effect.

There is some debate over whether international imbalances require further remedial action. Attempted remedies could take several forms. Instead of relying on exports as their engine of growth, foreign countries, especially those with strong currencies and strong trade balances, could stimulate domestic consumption and reduce their barriers to imports from the United States. That approach would stimulate U.S. exports and world trade generally. But there are a number of other possible scenarios with

Figure 8. Exports and Imports



SOURCE: Bureau of Economic Analysis.

NOTES: P = business cycle peak T = business cycle trough As designated by the National Bureau of Economic Research.

differing implications for the U.S. domestic economy. These include:

- o Further depreciation of the dollar, which could increase exports, reduce imports, and raise U.S. output and employment with some cost in inflation.
- o A more restrictive U. S. monetary policy, which by raising interest rates would encourage foreign capital inflows and restrict U.S. output and imports, with eventual reduction of the rate of inflation.
- o U.S. import controls, such as quotas and the recent reference price system for steel, which resemble depreciation in that they restrict imports and increase domestic inflation, but differ from depreciation in that they fail to help exports. From a global viewpoint, import controls reduce output and world trade by comparison with strategies that alter exchange rates or reduce trade barriers.

Oil accounts for a sizable share of the U.S. trade deficit. Current energy policy indirectly subsidizes oil imports. Enactment of an energy policy that raises domestic energy prices, encourages conservation, and ends the import subsidy may reduce the international trade deficit. Such a policy could, however, slow domestic growth, for a time, assuming no offsetting policy changes. In the long run, domestic energy output would be encouraged, thereby reducing dependence on imports.

FISCAL POLICY

The federal sector provided substantial stimulus to the economy in fiscal year 1977, and the stimulus continues in fiscal 1978. If the fiscal policies in force at the time this report goes to press remain unchanged, however, the budget would swing in a restrictive direction—that is, it would curb economic growth—in fiscal 1979.

The 1977 Stimulus

The federal stimulus measures implemented last summer began to affect output in mid-1977; they are continuing to have an expansionary effect. Of the \$6 billion authorized for accelerated public works (\$2 billion authorized in 1976 and \$4 billion as part of the 1977 stimulus program), less than \$1 billion had been spent as of mid-December 1977. Public service employment rose from 300,000 in May to 574,000 in November; the target level is 725,000. The countercyclical revenue-sharing program provided about \$1.7 billion in fiscal year 1977; it is expected to add about \$1.4 billion in fiscal year 1978. There were also tax cuts, effective late in fiscal year 1977, associated with the economic stimulus program, including an increase in the standard deduction for personal income taxes and a new jobs credit for business. effect of those tax cuts on revenues was small (about \$2.2 billion) in fiscal year 1977; however, it is expected to build to more than \$10 billion in fiscal year 1978, with maximum impact in the late spring, when a relatively large amount of refunds is expected to be paid out.

The Fiscal Policy Outlook

As a result of the measures described above, the federal budget is expected to provide more stimulus in fiscal year 1978

than in fiscal year 1977. Under assumptions of current policy, however, the budget moves in a restrictive direction in fiscal year 1979. Assuming continuation of current policy, our estimate of federal outlays on a unified budget basis is about \$455 billion in fiscal year 1978 and \$495 billion in fiscal year 1979. Those figures are nearly \$7 billion below the Administration's proposal in the current fiscal year and \$5 billion less in fiscal year 1979.

The change in the full-employment budget balance, 2/ a measure of the influence of fiscal policy on the economy, indicates (see Table 1) that under current policy the budget would swing toward restriction by more than \$21 billion in fiscal year 1979. That figure does not include the effect of yet-to-be-enacted energy legislation, which might significantly increase the size of the full-employment surplus. Under current policy assumptions, the growth in full-employment federal spending slows markedly--from an increase of \$52.4 billion in fiscal year 1978 to an increase of \$40.8 billion in fiscal year 1979--and this shift is even more

TABLE 1. FULL-EMPLOYMENT BUDGET a/ UNDER CURRENT POLICY ASSUMP-TIONS: NIA BASIS, BY FISCAL YEARS, IN BILLIONS OF DOLLARS

	1977	1978	1979
Full-Employment Expenditures	401.6	454.0	494.8
Full-Employment Receipts	391.2	435.7	497.8
Full-Employment Surplus/Deficit	-10.4	-18.3	+3.0

<u>a</u>/ Assumes a full-employment unemployment rate of approximately 4.9 percent.

^{2/} The full-employment budget adjusts the actual budget, on a national income accounts (NIA) basis, to a high-employment level of tax receipts and unemployment insurance expenditures.

pronounced relative to the size of the economy. At the same time, full-employment receipts grow very rapidly, by \$62 billion in fiscal year 1979, as compared with \$44.5 billion in fiscal year 1978.

Part of the increase in the growth of receipts in fiscal year 1979 is due to already legislated increases in social security and unemployment insurance taxes, but most results from increases in incomes. Personal income taxes are very responsive to increases in income—both real increases and those resulting from inflation.

Because of the progressive structure of the personal income tax, receipts increase faster than income and exert considerable restrictive influence. The combination of inflation and the progressive tax structure can be particularly contractionary: in such circumstances, effective tax rates rise without a corresponding increase in real income. The inflation-induced rise in tax rates is expected to increase revenues by perhaps \$6 billion in fiscal year 1979.

PROJECTIONS FOR 1978 AND 1979

The CBO forecast, summarized in Table 2, is based upon the following principal assumptions:

- o Federal outlays (unified budget) of \$455.4 billion in fiscal year 1978, \$3 billion below the targets contained in the second concurrent resolution, and \$494.8 billion in fiscal year 1979. 3/
- o No changes in tax rates other than the already legislated changes in social security and unemployment insurance taxes (the President's energy program and the Administration's recently announced fiscal stimulus package are not included in this forecast).

This assumption differs slightly from the estimates in the CBO "Five-Year Projections" of December 1977. In that report, public service employment declined as unemployment rates fell. In this forecast, public service employment is held level at 725,000 jobs.

TABLE 2. ECONOMIC PROJECTIONS BASED ON CURRENT POLICY, CALENDAR YEARS 1978 AND 1979

		Levels			Rates of Change (Percent)		
Economic Variable	1977:4 (actual)	1978:4	1979:4	1976:4 to 1977 (actual)	1977:4 to 1978:4	1978:4 to 1979:4	
GNP (billions of current dollars)	1965	2150 to 2190	2330 to 2430	11.9	9.4 to 11.5	8.2 to 10.9	
Real GNP (billions of 1972 dollars)	1361	1410 to 1420	1440 to 1480	5.7	3.5 to 4.5	2.4 to 3.9	
General Price Index (GNP Deflator, 1972=100)	144	152 to 154	161 to 164	5•9	5.7 to 6.7	5.7 to 6.7	
Consumer Price Index (1967 = 100)	185	195 to 198	206 to 211	6.7	5.5 to 6.5	5.5 to 6.5	
Unemployment Rate (percent)	6.6	6.0 to 6.5	6.1 to 6.6	-	-	-	

- o Growth in the broadly defined money supply (M2) near the upper end of the 6.5 to 9.0 percent target range announced by the Federal Reserve Board.
- o Growth in constant-dollar business fixed investment of about 5 percent in 1978, generally consistent with several recent surveys of business spending plans.
- o Rates of increase in consumer food prices of approximately 5 percent per year.
- o Increases in wholesale fuel prices averaging roughly 8 percent per year.

Using those assumptions, the forecast was derived from simulations with several large-scale econometric models, as well as CBO staff research and judgment about a wide variety of economic data, such as the personal saving rate, inventory-sales ratios, and residential construction activity.

The resulting forecast shows continued growth in real output substantially above trend from the fourth quarter of 1977 to the fourth quarter of 1978, at a rate of 3.5 to 4.5 percent, but with a significant slowdown late in 1978 and during 1979, when growth is projected at 2.4 to 3.9 percent. Utilization rates appear likely to improve somewhat during 1978, but show little or no advance in 1979. The unemployment rate is expected to improve somewhat further by the end of 1978, to between 6.0 and 6.5 percent, before leveling off or even rising later in 1979.

With utilization rates still relatively low, an acceleration of inflation due to demand pressures seems unlikely. The projection shows inflation continuing at 5.7 to 6.7 percent throughout the forecast period. Factors contributing to continued inflation rates of around 6 percent include increases in payroll taxes, in both 1978 and 1979; recent minimum wage legislation; continued increases in fuel costs; and money growth in excess of output growth. Energy prices continue to climb at a relatively rapid pace, although probably less than they would if proposed energy programs became effective.

Reasons for the Slowdown

The end of the forecast period, the fourth quarter of 1979, will be the 19th quarter since the economy hit a cyclical low point in March 1975. In over a century, no peacetime economic expansion in the United States has lasted that long. (The 35-quarter 1961-1969 expansion included the Vietnam War period with its expansive federal budgets.) The slowdown projected for 1979 under current fiscal policy does not end the expansion in output, but it does result in what some have called a "growth recession," where output grows at or below the potential growth rate of the economy and the unemployment rate fails to improve.

The slowdown does not occur because the economy reaches capacity ceilings. Although the recovery will be relatively long by historical standards in late 1978, it followed an exceptionally steep decline in output, and the amount of unused resources will remain large. The economy does not show the signs of excess inventories or other imbalances that have foreshadowed the end of previous cyclical recoveries, nor is it projected to develop serious imbalances.

The slowdown is, instead, the result of a combination of factors affecting the growth of real demands:

- o The swing, under assumptions of current policy, toward a more restrictive federal budget;
- o The levelling off and decline in housing activity as a result of increases in interest rates;
- o The levelling off in the personal saving rate;
- o The slowdown in nonresidential fixed investment.

Uncertainties in the Forecast

Economic projections are always fraught with uncertainty, and this forecast is no exception. Events such as unusual weather or strikes are one source of forecasting error. In addition, demands by households or businesses, or from abroad, could turn out to be significantly stronger or weaker than now expected. As usual, some sectors of the economy are currently subject to more

uncertainty than others. Three areas deserve special scrutiny in the months ahead as possible indicators that the economy will diverge from the forecast.

International Trade. The CBO projection shows the U.S. real net export balance improving slightly over the next two years. That forecast is subject to particular uncertainty, however, because our trade balance is to a great extent dependent upon the economic growth of our major trading partners. If other industrialized nations experience a resurgence of economic growth, their imports of U.S. commodities could be stronger than expected and the U.S. trade balance could show sizable improvement. On the other hand, if world growth is unexpectedly sluggish, U.S. exports could be even weaker than expected. Any further change in the value of the U.S. dollar could also change the outlook for the U.S. trade balance.

Monetary Policy. Another special uncertainty at the present time is the area of monetary policy and interest rates. During the early stages of the current recovery, money velocity (the ratio of current dollar GNP to the money stock) 4/ grew at an unusually rapid pace. Substantial increases in current dollar GNP were thus achieved with relatively modest increases in the money supply and decreases in short-term interest rates. More recently, however, velocity growth has slowed, and short-term interest rates have risen significantly over the past year.

It is difficult to predict what will happen to the relationships among current dollar GNP, the money stock, and interest rates in 1978 and 1979. In the CBO forecast, current dollar GNP growth in the 9.4 to 11.5 percent range during 1978 and further increases in short-term interest rates of another half a percentage point or so from recent levels are projected to be consistent with about 9 percent growth in the broadly defined money supply (M2); the Federal Reserve Board's announced target range for M2 is 6.5 to 9 percent between the third quarter of 1977 and the third quarter of 1978. (M1, the narrowly defined money supply, consists of currency and bank checking account balances held by the public. M2 consists of M1 plus bank time and savings deposits, except for

^{4/} For a discussion of the velocity of money, see <u>Sustaining A</u>
<u>Balanced Expansion</u>, CBO Report (August 3, 1976), pp. 32-35.

large denomination certificates of deposit.) If M2 velocity growth is substantially less than forecast in 1978, growth in GNP would weaken considerably, and fall below the midpoint of the CBO forecast range.

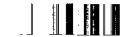
Still further uncertainty is introduced if it is assumed that the Federal Reserve would put major emphasis on the behavior of the MI target. The velocity of MI is significantly more volatile and difficult to forecast than the velocity of M2, and it would not be surprising if MI growth above the present target range would be required to achieve the growth projected by CBO. In such circumstances, the question arises whether the Federal Reserve would allow MI to overshoot the targets or would instead institute greater monetary restriction and higher interest rates.

At various times, the Federal Reserve has indicated its intention to lower periodically its target ranges for money aggre-Some advocate lowering money aggregate growth in response to the recent depreciation of the dollar. The CBO forecast would project even slower growth in output if these target ranges were reduced during 1978. The large-scale econometric models used by CBO in making these projections are not alone in warning of the real consequences of monetary growth below the upper end of the Federal Reserve's target ranges. The St. Louis Federal Reserve Bank's monetarist model of the U.S. economy 5/ indicates a significant rise in the unemployment rate by the end of 1979 if Ml growth is at the midpoint of the target range (4 to 6.5 percent from the third quarter of 1977 to the third quarter of 1978). By 1980, the inflation rate is a percentage point lower with M1 growth at the midpoint of the range than it would be with growth at the top of the range, but the unemployment rate rises very substantially. 6/

<u>Inflation</u>. Finally, there is some uncertainty about the inflation rate forecast. Some argue that the inflation forecast should be lower because economic slack is still present, because

^{5/} Leonall C. Anderson and Keith M. Carlson, "A Monetarist Model for Economic Stabilization," Review, Federal Reserve Bank of St. Louis (April 1970), pp. 7-25.

^{6/} Based upon a current fiscal policy forecast prepared for CBO by the Federal Reserve Bank of St. Louis.



farm prices will probably not add as much to the price level in 1978, and because the effects of the oil price shock continue to wear off. Others argue that inflation will accelerate from 1977 rates because of the improvement in unemployment and utilization that has taken place. In the presence of these uncertainties, CBO has projected a stable inflation rate with policies in force at year-end. Given unchanged fiscal and monetary policies, a significant reduction in inflation would probably encourage more output and employment, while an acceleration in prices might initially be associated with higher economic activity but ultimately with less output and employment.

CHAPTER II. EXPANSIVE FISCAL POLICY MEASURES AND ALTERNATIVE ECONOMIC PROJECTIONS

The forecast presented in the previous chapter indicates that economic growth will likely slow substantially during the next two years and the unemployment rate will not likely improve much, if fiscal and monetary policies remain at levels consistent with current legislation and current monetary targets. As shown in Chapter I, the federal budget will shift strongly in the direction of restraint in fiscal year 1979 if no fiscal stimulus is enacted. Thus, there is considerable sentiment for a tax cut or other stimulus measures. This chapter considers the effect on the forecast of various measures for fiscal policy stimulus aimed at moving the economy toward Congressional goals for employment and output.

ALTERNATIVE FISCAL MEASURES

Many kinds of fiscal policies and programs could be used to provide additional net stimulus to the economy or to offset higher social insurance taxes, possible energy taxes, and the upward creep of personal income tax rates that results from the interaction of higher income and the progressive nature of the income tax. Six types of general stimulus measures, including both expenditure increases and tax cuts, will be considered here:

- o an increase in federal purchases of goods and services,
- o an increase in public service employment,
- o a cut in personal income taxes,
- o an increase in the investment tax credit,



- o a liberalization of accelerated depreciation allowances, and
- o a reduction in the corporate tax rate.

These measures will be discussed in broad terms and their impacts on the economy will be quantified to the extent possible.

Some of the important macroeconomic considerations in comparing measures for fiscal stimulus are: (1) the size of the impact on output and employment per dollar of budget cost and the effect on prices; (2) the time needed to implement the budget change; (3) the lag between implementation and the effect on economic activity; (4) the long-run effect on economic incentives; and (5) the extent of long-run budget commitment.

Both theoretical and empirical evidence indicate that different fiscal changes have their own particular effects on output, employment, and prices as well as effects on the composition of GNP. 1/ Moreover, these effects depend on the particular economic conditions that prevail when the changes are implemented. For example, the closer the economy is to capacity, the smaller the real output and employment effects and the larger the price effects of fiscal stimulus. Monetary policy and credit conditions are also important, as explained in the last section of this chapter. The net budget effect of all of the stimulus measures discussed below is substantially less than the direct cost because the general economic stimulus generates additional income and revenues. But all of these stimulus measures would increase the deficit and thus not completely "pay for themselves."

Expenditure Measures

Changes in government purchases of goods and services are generally thought to have greater effects on output and employment than changes in taxes and transfer payments to individuals.

^{1/} For a detailed discussion of these issues, see <u>Understanding</u>
Fiscal Policy, forthcoming CBO Background Paper.

The reason is that the impact of taxes and transfers is transmitted largely through income, some of which is saved, whereas changes in government purchases enter the spending stream directly. The relatively larger effect of changes in purchases is evident in Table 3, which shows the effects of comparable changes in purchases, grants for public service jobs, and personal income taxes, as estimated by the CBO multipliers model. 2/ Of course, the abrupt step change in spending assumed for comparability in the simulation is unrealistic for federal purchases. In fact, a major disadvantage of using purchases as a stimulative device is that it generally takes a long time to implement such spending programs after the appropriations are enacted.

Somewhat different results are attained by tailoring the expenditure to meet specific problems. For example, federal grants for public service jobs are a relatively effective way to increase jobs per dollar of outlay if funds are directed at relatively low-wage payrolls with little going to other purposes, such as profits. Table 3 shows the result of a CBO multipliers model simulation for this type of spending. Since a public service jobs program cannot be implemented without delay, the abrupt step change assumed here for comparability would also be difficult to achieve. Historical experience indicates that perhaps as many as 50,000 jobs per month can be added for an extended period.

Personal Income Taxes

The impact of changes in personal income taxes, as estimated by the CBO multipliers model, is also shown in Table 3. While the effects on economic activity are smaller than changes in purchases (but not smaller than grants for public service jobs), the tax cuts produce considerably less inflation, at least in the ensuing two years.

^{2/} See The CBO Multipliers Project: A Methodology for Analyzing the Effects of Alternative Economic Policies, CBO Technical Analysis Paper (August 1977).

TABLE 3. ESTIMATES OF THE CBO MULTIPLIERS MODEL OF EFFECTS OF THREE FISCAL STIMULUS MEASURES HAVING A \$10 BILLION DIRECT COST

Economic Variable	Increased Purchase of Goods and Services	Public Service Jobs	Decreased Personal Income Tax
One Year A	fter Impleme	ntation	
GNP (billions of current dollars)	20.1	13.9	10.7
Real GNP (billions of 1972 dollars)	13.0	7.6	7.0
GNP Deflator (percent) Unemployment Rate (percent	<u>a/</u>) -0.3	0.1 -0.6	$\begin{array}{c} \underline{a}/\\ -0.2\\ \end{array}$
Two Years A	fter Impleme	entation <u>b</u> /	
GNP (billions of current dollars)	27.2	19.6	17.7
Real GNP (billions of 1972 dollars)	14.6	6.1	9.9
GNP Deflator (percent) Unemployment Rate (percent	0.2	0.4 -0.6	0.1 -0.3

a/ Less than 0.05 percent.

b/ GNP impacts decline somewhat after two years.

A major advantage of most tax measures is that they can be put into effect in a relatively short time. Thus, from the point of view of timing, the personal income tax is a relatively effective countercyclical tool. The time lag between implementation of personal income tax changes and the realization of their maximum effect in the economy, however, appears to be about the same as for expenditure changes.

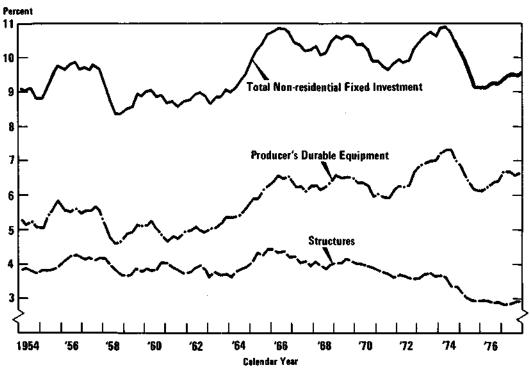
Measures to Stimulate Business Investment

Generally, changes in business taxes are not considered an appropriate short-run stimulus tool because they affect investment spending and economic activity with fairly long lags. Over time, however, business tax changes can provide very substantial stimulus to investment and total output and to increased productivity, which reduces inflationary pressures and is the basis for increases in real per capita income.

Many observers have noted that investment spending proceeded at a very rapid pace in the 1960s and early 1970s because of, at least in part, substantial cuts in business taxes. But, as noted earlier, business investment spending has been slow to recover in this expansion (see Figure 9). In the last quarter of 1977, real outlays for nonresidential fixed investment were still 2.8 percent below the 1974 high, with investment in structures especially weak. There is some concern that this slowdown in investment since 1974 will impair future growth in productivity.

For these reasons, there is now fairly widespread interest in the possibility of stimulating investment through reductions in business taxes. Measures frequently proposed to stimulate business fixed investment include:

Figure 9.
Business Fixed Investment as a Percent of GNP



SOURCE: Bureau of Economic Analysis.

NOTE: Business fixed investment and GNP in 1972 dollars.

- o Increasing the investment tax credit on equipment, extending it to structures, or liberalizing the rules that restrict the amount of the credit; 3/
- o Accelerating depreciation allowances on plant and equipment; and
- o Reducing the maximum corporate income tax rate, now 48 percent of taxable income.

Effects on Investment. While all three of these tax instruments are believed to have some effect on investment, economists generally feel that the investment tax credit and accelerated depreciation have larger effects per dollar of tax reduction than a cut in the corporate income tax rate. A rate reduction increases the return on all capital, including existing capital goods, whereas the investment tax credit (ITC) and accelerated depreciation allowance (ADA) generally increase the return only on new investment. Thus, these latter measures provide a more pointed incentive to invest.

A reduction in the corporate income tax rate does leave the corporation with more funds that it could use for increased spending on plant and equipment; but some firms may choose to use a large part of these funds in a number of ways that tend to diminish the impact on investment—for example, raise dividends, reduce indebtedness, or acquire other businesses. By contrast, the

^{3/} The investment tax credit now equals 10 percent of the cost of eligible equipment. To be eligible for the full credit, the equipment must have a useful life of at least seven years, with reduced credit permitted on equipment with useful life of from three to six years. Structures are not now eligible for the credit. In addition, there are rules that limit the extent to which the credit can be used so that only a portion of the income tax of a firm can be reduced.

investment tax credit and its close cousin, accelerated depreciation, are directly tied to investment behavior since the tax advantage accrues only if the business invests.

A feature of the ITC and ADA, considered to be a disadvantage by some, is that they affect different sectors of the economy and different types of investment unevenly. For example, industries with large capital investments receive large benefits compared to labor-intensive industries or declining industries. On the other hand, both benefit unincorporated businesses as well as corporations, while the benefit of a reduction in the corporate income tax rate tends to be limited to the corporate sector.

Uncertainty Over Magnitude of Effects. There is considerable disagreement over the size of effects of these tax instruments on business investment, on other investment such as housing, and on the inflation rate. The uncertainty over the effects of these instruments appears to be substantially greater than that associated with changes in the personal income tax or in government spending.

In part, the difference of opinion over the effectiveness of these policies hinges on the issue of whether investment decisions are most influenced by final demands and utilization of the existing capital or by changes in the cost of capital goods. Those who argue that utilization rates are the predominant determinant of investment spending believe that tax cuts which reduce the cost of capital goods are less stimulative than measures that substantially boost final sales, such as a cut in personal income taxes.

In addition, some feel that the investment tax credit and accelerated depreciation primarily affect the composition of investment (as between business and other types of investment such as housing) rather than the level of investment. This "crowding out" effect would be more pronounced when resources are close to being fully used than during periods of considerable slack.

The size of effects of reducing the corporate income tax is also uncertain. While this policy change would increase retained earnings and probably dividends, the effect on real investment is much less certain. If investment projects are based primarily on capacity utilization rates—with corporations willing and

able to borrow when internal funds are insufficient--changes in after-tax profits may have relatively little effect on investment.

CBO analyzed the effects of these business tax changes using three different macroeconomic models. The results of the model simulations suggest that it is very difficult to arrive at consensus estimates of the magnitude of real effects, and, in the case of prices, even of the direction of the effect. Details of the results of the model simulations appear in Appendix A.

ILLUSTRATIVE FISCAL STIMULUS PACKAGES

A number of stimulative fiscal policy proposals are now being discussed, including the proposals recently put forth by the Administration. Most such proposals involve a combination of personal and business tax cuts and sometimes some type of expenditure program as well. Such departures from current policy spending and revenues could significantly alter the economic outlook. This section discusses the economic effects of selected proposals and presents CBO's estimate of the effect on the outlook of three illustrative stimulus packages. While the estimated effects of each change in policy are subject to a considerable margin of error, they offer some idea of the magnitude of expected effects.

The policy adjustments relating to the tax and public service jobs measures are:

- o A \$17 billion (annual rate) reduction in personal income taxes, effective October 1, 1978.
- o A \$7 billion cut in business tax payments, consisting of a \$4 billion (annual rate) reduction in the corporate income tax rates and about a \$3 billion increase in the investment tax credit. Because of the immediate impact that an announcement can have on the timing of investment, it is assumed that claims for the credit would apply to all of calendar year 1978. A 2 percent corporate tax rate cut (not retroactive), is assumed to be phased in as a reduction of 0.5 percentage points on calendar year 1978 liabilities and an additional 1.5 percentage points on calendar year 1979 taxes.



o An increase in the total size of public service employment rolls from 725,000 to 1,200,000 jobs through programs under the Comprehensive Employment and Training Act (CETA). By the end of fiscal year 1979, this would increase the annual rate of CETA expenditures by \$3.8 billion. The estimates shown for the economic impact of CETA jobs assume that prime sponsors use 50 percent of the additional job slots to hire persons whom they would have hired without any increase in the program.

The separate effects of these measures are discussed in Appendix B.

Since there are numerous ways in which these and other policy changes (or fractions of them) could be combined into an overall fiscal program, a discussion of policy combinations is necessarily limited to a few illustrative packages. The effects of three such packages on the economic outlook are discussed below and summarized in Table 4.

Illustrative Case 1: \$24 Billion Tax Cut

The first stimulus package assumes a \$24 billion reduction in taxes--\$17 billion in personal taxes and \$7 billion in business taxes -- and no other changes in current policy. The result is significant improvement in the outlook for economic growth and unemployment levels by the end of 1979, at some cost of additional inflation, as shown in Table 4. By the fourth quarter of 1979, real GNP would be about 1 percent higher than under the current policy forecast. The unemployment rate would be about 0.4 percentage points lower than the baseline forecast. The impact on the price level, as measured by the increase in the implicit GNP deflator (a broad measure of the rate of inflation) from the baseline, would be insignificant in 1978 but would build to about 0.3 percent by the end of 1980. The deficit in fiscal year 1979 would be about \$21 billion larger, including a temporary \$2.0 billion revenue loss for the retroactive feature of the investment tax credit.

Illustrative Case 2: Earlier \$15 Billion Tax Cut

The second package assumes a smaller, but earlier, stimulus consisting of a \$15 billion reduction in taxes effective July 1

TABLE 4. ALTERNATIVE ECONOMIC PROJECTIONS UNDER THREE ILLUSTRATIVE PACKAGES OF FISCAL STIMULUS

Economic Variable	Case 1: \$24 Billion Tax Cut	Case 2: \$15 Billion Earlier Tax Cut	Case 3: \$30 Billion Tax Cut and Spending Increase
Fourt	th Quarter of Cal	endar Year 1978	
GNP (billions of	2157 to 2197	2158 to 2198	2159 to 2199
current dollars) Percent change <u>a</u> /	9.8 to 11.9	9.8 to 11.9	9.9 to 12.0
GNP (billions of 1972 dollars)	1415 to 1425	1415 to 1425	1416 to 1426
Percent change a/	3.9 to 4.9	3.9 to 4.9	4.0 to 5.0
Unemployment Rate (percent)	6.0 to 6.5	5.9 to 6.4	5.9 to 6.4
Four	th Quarter of Cal	lendar Year 1979	
GNP (billions of current dollars)	2362 to 2462	2353 to 2453	2374 to 2474
Percent change <u>a</u> /	9.3 to 12.0	8.9 to 11.6	9.7 to 12.4
GNP (billions of	1459 to 1499	1453 to 1493	1465 to 1505
1972 dollars) Percent change <u>a</u> /	3.4 to 4.9	3.0 to 4.5	3.8 to 5.3
Unemployment Rate (percent)	5.7 to 6.2	5.8 to 6.3	5.4 to 5.9
Four	th Quarter of Cal	lendar Year 1980	
Change in Price Level, GNP Deflator (percent)	0.2 to 0.4	0.15 to 0.35	0.4 to 0.6

a/ Percent change is percent change from four quarters earlier.

rather than October 1 as in the other two packages. The composition of this tax change is similar to that contained in the personal income taxes are reduced by about \$11 first package: billion and business taxes by about \$4 billion. With the earlier effective date, the impact of this package has more time to work through the economy, and unlike the first illustrative case, causes a fractional reduction in the unemployment rate by the end of 1978, compared with the current policy forecast (see Table 4). earlier tax cut helps to maintain the momentum in real GNP growth during 1978 4/, though the ultimate effect is smaller than the larger stimulus packages. By the end of 1979, the outlook with the second option includes unemployment in the 5.8 to 6.3 percent range. Growth in real GNP from the end of 1978 to the end of 1979 is estimated at 3.0 to 4.5 percent. The earlier tax cut increases the deficit by about \$4 billion in fiscal year 1978 and \$11 billion The earlier effective date of this option would require reconsideration of the Second Concurrent Resolution on the Fiscal Year 1978 Budget.

<u>Illustrative Case 3: \$24 Billion Tax Cut and \$6 Billion Additional</u> Expenditures

The third package involves a somewhat larger stimulus consisting of \$24 billion in tax reductions, as in the first package, and an additional \$6 billion in expenditures. Included in the increase in expenditures is more than \$2 billion for the public service employment program described earlier and about \$4 billion additional spending for a variety of programs. The outlook with this stimulus package is for the unemployment rate to be 5.4 to 5.9 percent by the end of 1979, with 1.3 percent additional real growth during 1979 (see Table 4). This stimulus package adds about an extra 0.5 percent to the price level by the end of 1980. The deficit in fiscal year 1979 would be about \$25 billion larger.

^{4/} These simulations may somewhat overstate the impact of an earlier as compared to a later tax cut if the tax cuts are passed in advance of their effective dates. In that case, there would be some anticipation effects, although these would be difficult to estimate quantitatively.

Other Fiscal Measures

More experimental approaches have been suggested as tools for stimulating the economy while at the same time minimizing resulting inflationary pressures. 5/ These include a proposal that the federal government might "buy out" state and local sales taxes by offering to replace some or all of the revenue loss. The Consumer Price Index (CPI) and other measures of market prices include sales taxes; the result of lowering sales taxes would be to reduce the indexes and perhaps put some downward pressure on prices via smaller cost-of-living adjustments that are based on these indexes. Another proposal, which is sometimes mentioned in discussions of incomes policies, would be to offer businesses and workers financial inducements in the form of tax credits for holding wage and price increases below some noninflationary standard. While these proposals are both new and untried, they merit close examination and further discussion.

As noted in the previous chapter, the burden of unemployment is not distributed evenly among regions, cities and suburbs, and among racial and ethnic groups. Thus, a possible alternative to general tax stimulus involves concentrating policy on the most severe aspects of unemployment problems. An argument for this targeting approach is that it attempts to do something about the most severe burdens, while minimizing the overall inflationary impact that could result from general stimulus measures. Some persons believe that this approach is less inflationary because it may involve a smaller fiscal stimulus and it is designed to affect markets with considerable slack. Increased funding for youth employment and training programs or for economically depressed areas might be possibilities for implementing this approach.

^{5/} For a more detailed discussion of these and related measures see Arthur M. Okun, "The Great Stagflation Swamp," The Brookings Bulletin, Vol. 14, No. 3 (Fall 1977); and also Recovery With Inflation, CBO Report (July 1977) pp 35-41.

Economic stimulus might also be applied through the new jobs credit approach. The new jobs credit offers a tax inducement to a business when it increases its payroll employment beyond a specified amount. This approach offers the potential of stimulating employment directly while at the same time reducing some of the pressures on labor costs. Further, it could be aimed at particular types of unemployment problems, though this tends to add to administrative complexity. Since the measure was introduced only last year, it is still too early to assess the effectiveness of this fiscal tool.

One approach for dealing with inequities of inflation and the restrictive effect of inflation on the budget would be to index the tax system for inflation. Indexing would not only reduce the fiscal drag caused by inflation; it might also reduce some of the uncertainty over the timing and composition of future reductions in taxes. There are, however, formidable difficulties in following this course. For one thing, the effects of inflation on different types of incomes are very difficult to determine. For another, it would not be easy to select appropriate price indexes for use in indexing the system. Finally, in some circumstances—for example, when there are strong demand pressures in the economy—the automatic fiscal drag produced by the interaction of progressive taxes and inflation could be welcome.

MONETARY POLICY

As indicated in the previous chapter, a source of great uncertainty in the economic outlook is the behavior of interest rates and monetary policy. If the velocity of money (the ratio of current dollar GNP to the money stock) should grow at its post-war trend rate, the money aggregate growth targets of the Federal Reserve would not be sufficient to permit economic growth at the mid-point of the CBO forecast range. The higher interest rates that might result from such a circumstance would adversely affect the outlook for residential construction, business investment, and consumer demands. On the other hand, if the Federal Reserve pursues a more expansive policy than assumed here, the projected slowdown in activity might not materialize. In particular, housing starts would probably remain at high levels or even increase, rather than decline as in the CBO forecast.

One of the most important problems still complicating the formulation of stabilization policies is the coordination of monetary and fiscal policies. The CBO estimates of the impact on economic activity of various fiscal stimulus measures assume

that the Federal Reserve responds to the stimulus by supplying sufficient reserves to the banking system to avoid stringent credit conditions. Other reactions are possible. Fiscal stimulus generally tends to raise interest rates and, if the monetary authorities were to offset the upward interest rate effects of stimulus measures, the effects of the fiscal stimulus would likely be larger. Smaller effects than those estimated by CBO would likely result if th Federal Reserve were to keep on the same money growth path despite the increased demands in the economy. 6/

A fundamental problem of coordination is the lack of a mechanism to assure that the Congress and the Federal Reserve are seeking the same goals. 7/ For example, if the Congress should choose a more stimulative fiscal policy in order to achieve faster economic growth, these measures could have little overall effect if the Federal Reserve sought a lower money growth target. Similarly, if the Congress should choose to emphasize the problem of inflation, Federal Reserve action could bring these efforts to naught. Thus, a requirement of a successful fiscal policy is careful consideration of Federal Reserve plans.

A possible advantage of close coordination of fiscal and monetary policies would be the opportunity to change the mix of stabilization policies. It is sometimes suggested, for example, that private investment should be encouraged by monetary policy, rather than fiscal policy. Such a change in the policy mix should reduce the size of the federal deficit and result in lower interest rates than those that would have prevailed otherwise. Since a good part of business capital spending is financed by borrowing, lower interest rates reduce the cost of making a capital investment

^{6/} For a more detailed discussion of this issue, see <u>Understanding</u>
<u>Fiscal Policy</u>, a forthcoming CBO Background Paper.

^{7/} For further discussion of this issue, see Statement of Alice M. Rivlin, Director, Congressional Budget Office before the Senate Committee on Banking, Housing and Urban Affairs, November 11, 1977.

in a way that is similar to the investment tax credit. Moreover, lower interest rates also encourage prices in the stock market to rise and thus reduce the cost of capital faced by business in that market as well.

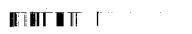
Despite these possible positive aspects of assigning a greater role to monetary policy, there also are a number of possible drawbacks that must be considered. The following should be mentioned:

- o To attain lower interest rates, the monetary authorities would have to supply more reserves to the banking system, thus allowing a greater quantity of money. With real activity no higher than with fiscal stimulus, this extra money could generate a higher level of inflation. Easier monetary policy might also stimulate inflationary expectations that cause a rise in market interest rates. As a stimulus to investment, reducing business taxes would probably have less inflationary effect.
- o If the objective was to boost business investment, monetary policy would also have the drawback that its effects would tend to spread over a number of other sectors as well. The most powerful effect would likely be on housing activity, a sector that is quite sensitive to the availability of mortgage funds and to interest rates.
- o It is possible that the lags of monetary policy actions would be somewhat longer than those of a change in the investment tax credit. Monetary policy changes seem to have smaller announcement effect and it might take businesses a while to recognize the change in policy mix and adjust their plans in response to lower market interest rates.
- o Lower interest rates in the United States would encourage foreign investors to shift their funds to other currencies. This would depress the value of the dollar and thereby increase prices of U.S. imports while reducing the foreign prices for U.S. exports.

This is a very difficult time to formulate an overall strategy for stabilization policy. The economy has been suffering simultaneously from an inadequate level of economic activity, reflected in high unemployment rates, and rapidly rising prices. Both inflation and unemployment have proved remarkably persistent. Fiscal and monetary policies aimed at reducing unemployment risk escalating inflation, while policies aimed at restraining inflation carry the risk of choking off the expansion. As indicated earlier, such risks might be reduced to some degree by somewhat greater reliance on targeted policies designed to reduce unemployment among groups with particularly high unemployment rates, and possibly also by the use of tax cuts designed to lower consumer prices and business costs.

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APPEND	IXES				



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APPENDIX A. EFFECTS OF THREE BUSINESS TAX CHANGES: SIMULATIONS BY THREE MACROECONOMIC MODELS

Using three different macroeconomic models, CBO analyzed the effects of three business tax changes:

- o Increasing the investment tax credit (ITC) on equipment by approximately \$3 billion; 1/
- o Accelerating depreciation allowances (ADA) on plant and equipment; and
- o Reducing revenues by about \$4.0 billion by cutting the maximum corporate income tax rate.

An attempt was made to introduce the same policy changes for each model and to determine the impact on key economic measures. As will be explained, the revenue effects of changing depreciation guidelines grew substantially between the first and third years, reaching about \$3 billion at the end of the period.

The results of the model simulations, summarized in Table A-1, confirm the wide disparity of opinion over the quantitative effects of changes in business taxes on the economy. They suggest, however, several general conclusions. First, the effects occur with relatively long lags. For example, the impact on investment spending and real GNP was very slight the first year; the effect during the third year was about four times greater and, in general, still building. Second, the results suggest that the change in the ITC did not have much effect on housing investment during the simulation period. Third, the simulation results generally support the conclusion that the investment tax credit and the accelerated depreciation allowance are more effective stimulants for business investment per dollar of tax reduction than a reduction in the corporate income tax rate.

 $[\]frac{1}{}$ No attempt was made to extend the investment tax credit to structures as proposed by the Administration.

TABLE A-1. EFFECTS OF CHANGES IN BUSINESS TAXES: A COMPARISON OF RESULTS BASED ON THREE MACROECONOMIC MODELS

Economic Variable	First Year	Third Year			
Investment Tax Credit Increase of Approximately \$3 Billion					
Change in Real GNP (billions of 1972 dollars)	0.4 to 1.1	1.7 to 6.2			
Change in Real Business Fixed Investment (billions of 1972 dollars)	0.1 to 0.6	1.1 to 5.1			
Change in Price Level (GNP deflator, 1972=100)	-0.1 to 0	-0.4 to 0.3			
Corporate Income Tax Rate Cut of App	roximately \$4 B	illion			
Change in Real GNP (billions of 1972 dollars	0.2 to 1.0	2.2 to 5.8			
Change in Real Business Fixed Investment (billions of 1972 dollars)	0.1 to 0.3	1.0 to 1.9			
Change in Price Level (GNP deflator, 1972=100)	0	-0.3 to 0.2			
		-			
Accelerate Depreciation in Tax Life of Plant and Equipment a/					
Change in Real GNP (billions of 1972 dollars)	0.4	1.6 to 6.1			
Change in Real Business Fixed Investment (billions of 1972 dollars)	0.1 to 0.4	1.4 to 5.6			
Change in Price Level (GNP deflator, 1972 = 100)	-0.1 to 0	-0.5 to 0.3			

a/ Assumes a 20 percent cut in the tax life of plant and equipment.
See text for discussion of revenue loss.

The results of the model simulations suggest that it is very difficult to arrive at consensus estimates of the magnitude of real impacts, and, in the case of prices, even the direction of impact. Thus, in the third year, estimates of the effect on real GNP of increasing the ITC ranged from \$1.7 to \$6.2 billion, and on business investment from \$1.1 to \$5.1 billion. The divergence in the estimated first year effect of the corporate income tax reduction rate was also marked, with one of the models showing a \$1 billion impact on real activity and another model showing an increase of only \$0.2 billion. Moreover, there were discrepancies among the models in the direction of the price effects for all three policy changes. For example, in the third year, the effects on the price level of increasing the ITC ranged from minus 0.4 index points to plus 0.3 points. In all cases, however, the price effects were very small the first and second years, but larger the third year.

The direct reduction in federal revenues because of the accelerated depreciation policy grew substantially over the simulation period, while those from the other two policy changes did not. The reason for the slight impact of the depreciation policy at first is that usually only new investment projects qualify and the tax savings on a particular project is realized over an extended period of time. To the extent that firms anticipate the full effects of changes in depreciation rules on their future tax liabilities, the ADA policy may have an added impact on investment per dollar of revenue loss during the first few years, because part of the effect on revenues is delayed.

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The effects of three expansionary fiscal policy changes are analyzed in this appendix. They are:

- o A \$17 billion (annual rate) reduction in personal income taxes, effective October 1, 1978.
- o A \$7 billion cut in business tax payments, consisting of a \$4 billion (annual rate) reduction in the corporate income tax rates and about a \$3 billion increase in the investment tax credit. Because of the immediate impact that an announcement can have on the timing of investment, it is assumed that claims for the credit would apply to all of calendar year 1978. A 2 percent corporate tax rate cut, on the other hand, is assumed to be phased in as a reduction of 0.5 percentage points on calendar year 1978 liabilities and an additional 1.5 percentage points on calendar year 1979 taxes.
- o An increase in the total size of public service employment rolls from 725,000 to 1,200,000 jobs through programs under the Comprehensive Employment and Training Act (CETA). By the end of fiscal year 1979, this would increase the annual rate of CETA expenditures by \$3.8 billion. The estimates shown for the economic impact of CETA jobs assume that prime sponsors use 50 percent of the additional job slots to hire persons whom they would have hired without any increase in the program.

The effects of these policy changes on the economy are summarized in Table B-1. The \$17 billion cut in personal taxes would add approximately 420,000 jobs by the fourth quarter of calendar year 1979. The federal deficit would be increased by \$13.1 billion in fiscal year 1979.

TABLE B-1. EFFECTS OF THREE EXPANSIONARY FISCAL OPTIONS, EFFECTIVE OCTOBER 1, 1978: DIFFERENCE FROM BASELINE PROJECTIONS

Economic Variable	Personal Tax Cut of \$17 billion (annual rate)	-	Increased Public Service Employment
Direct Budget Cost, Fiscal Year 1979 (billions of dollars)	17.0	8.9 <u>a</u> /	2.2 <u>b</u> /
Net Budget Cost Fiscal Year 1979 (billions of dollars)	13.1	8.0	1.4
GNP Impact, 4th Quarter, Calendar Year 1979 (billions of current dollars)	, 22.7	8.8	5.2
Employment Impact, 4th Quarter, Calendar Year 1979 (thousands of persons)	420	140	290
Unemployment Rate Impact 4th Quarter, Calendar Year 1979 (percentage points)	-0.3	-0.1	-0.2
Consumer Price Index, 4th Quarter, Calendar Year 1980 (percent) <u>a</u>	0.25	0.05	0.15

a/ Includes nearly \$2.0 billion reduction in tax payments in fiscal year 1979 that is applicable to 1978 liability as a result of the retroactive feature of this measure. The annual rate effect is about \$7 billion in fiscal year 1980.

 $[\]frac{b}{}$ Phased in over fiscal year, reaching \$3.8 billion annual rate by the last quarter of the year.

<u>c/</u> Inflation effects of these options for 1979 (not shown) are very small but build up thereafter.

The cut in business taxes would add approximately 140,000 jobs by the end of calendar year 1979, and increase the fiscal year 1979 deficit by about \$8 billion. As discussed in the text, the impact of reductions in business taxes are subject to a great deal of uncertainty. The effect on the economy of business tax cuts would be speeded up to some extent because the changes in the ITC are assumed to be retroactively effective on January 1, 1978—nine months earlier than the assumed changes in personal taxes and in corporate tax rates—and some firms might increase investment spending in anticipation of the reduction in tax payments.

The expansion in the public service employment program has about 70 percent as much impact on employment as the change in personal income taxes by the fourth quarter of 1979, even though the net budget impact of the increase in public service employment on the fiscal year 1979 deficit is only about one-tenth.

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