THE DISAPPOINTING RECOVERY

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Congressional Budget Office

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PREFACE

The Disappointing Recovery is one of a series of reports on the state of the economy issued periodically by the Congressional Budget Office. In keeping with CBO's mandate to provide nonpartisan analysis of policy options, the report contains no recommendations. It was prepared by George Iden, Cornelia Motheral, Nancy Morawetz, Michael Owen, Mary Kay Plantes, David Rowe and other members of the Fiscal Analysis staff, under the direction of Frank de Leeuw, and edited by Patricia H. Johnston.

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SUMMARY

The nation's output in recent quarters has fallen short of what forecasters expected last spring and summer. The report accompanying the Second Concurrent Resolution on the Fiscal Year 1977 Budget, passed in September 1976, assumed that output would grow at a 5.5 to 6.0 percent annual rate in 1976 and 1977 and that the unemployment rate would fall to 6.2 percent by the end of 1977. There now seems almost no chance of meeting these output and unemployment assumptions under current budget policy. The Budget Committees are consequently moving to consider a third budget resolution for fiscal year 1977 in advance of the initial budget resolution for 1978.

The mid-1976 forecasts assumed that the exceptionally long and deep 1973-75 recession would be followed by a faster-than-average recovery that would make up some of the lost ground. In fact, recovery since the bottom of the recession has proceeded at about an average rate, with the result that unemployment remains unusually high.

In the absence of policy changes, CBO's forecast for 1977 projects real output growth at 3.5 to 5.0 percent and an unemployment rate of 7.1 to 7.8 percent (7 to 7½ million workers) by the end of the year. Even by the end of 1978 the unemployment rate is projected above 6.5 percent. The rate of inflation is projected at 4.5 to 6.0 percent for 1977, well below 1973-74 rates but little changed from more recent experience.

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CURRENT-POLICY FORECAST

Economic Variables	1977	1978
Growth in constant-dollar GNP, fourth quarter to fourth quarter (percent)	+3.5 to +5.0	+3.0 to +5.5
Unemployment rate, fourth quarter (percent)	7.1 to 7.8	6.6 to 7.6
Inflation rate, general price index (GNP deflator), fourth quarter to fourth quarter (percent)	+4.5 to +6.0	+4.0 to +6.0

Changes in policy could move the economy closer to earlier assumptions about output and employment. Five fiscal policy options are analyzed in the report:

- A $16 billion personal tax rebate paid out in the third quarter of 1977;
- A $10 billion (annual rate) permanent reduction in personal taxes beginning in the third quarter of 1977;
- A $5 billion (annual rate) corporate tax reduction beginning in the third quarter of 1977, divided between an increase in the investment tax credit and a rate reduction;
- A $5 billion increase (annual rate) in countercyclical revenue sharing and public service employment, the former beginning in the second quarter of 1977 and the latter building gradually during the second half of 1977;
- A $6 billion authorization of public works projects, with outlays rising slowly during 1977 and 1978.

Estimated economic impacts of these policies are shown in the accompanying table.

Combinations of these options could add substantially to the number of jobs. Three illustrative policy combinations analyzed in the report would add an estimated 310,000, 610,000, and 920,000 jobs, respectively, by the end of 1977, and more in 1978. At present rates of unemployment and unused capacity, expansionary measures would have relatively little effect on the rate of inflation.

Expansionary fiscal policies would, however, entail a higher federal deficit. For fiscal year 1977, the deficit, even in the absence of policy changes, is now estimated at $54 to $58 billion, higher than the $50.6 billion in the second Congressional resolution because of the weaker economy than was foreseen at the time. The three policy combinations analyzed in the report would add another $9 to $19 billion to the 1977 deficit.

ESTIMATED IMPACTS OF EXPANSIONARY FISCAL POLICY OPTIONS

Options	Employment Impact (thousands of additional jobs)		Unemployment Rate Impact (percentage points reduced unemployment)		Inflation Impact (percentage points additional inflation)	Net Budget Cost[a] (billions of dollars)	
	1977:4	1978:4	1977:4	1978:4	1980	Fiscal Year 1977	Fiscal Year 1978
1. $16 Billion Personal Tax Rebate	500	170	-0.4	-0.1	0.0	+15	-3
2. $10 Billion Permanent Personal Tax Reduction	110	350	-0.1	-0.3	0.1 to 0.2	+ 2	+7
3. $5 Billion Business Tax Reduction	10	190	0	-0.1	0.1 to 0.2	+ 1	+3
4. $5 Billion Increase in Countercyclical Revenue Sharing and Public Service Employment	260	410	-0.2	-0.3	0.1 to 0.2	+ 1	+2
5. $6 Billion Authorization for Accelerated Public Works, Spending Rising Slowly to $3 Billion Rate	40	140	0	-0.1	0.1	0	+1

a. The net budget cost of each option equals its direct spending increase or tax reduction minus the estimated higher revenues and lower income-support payments it causes.

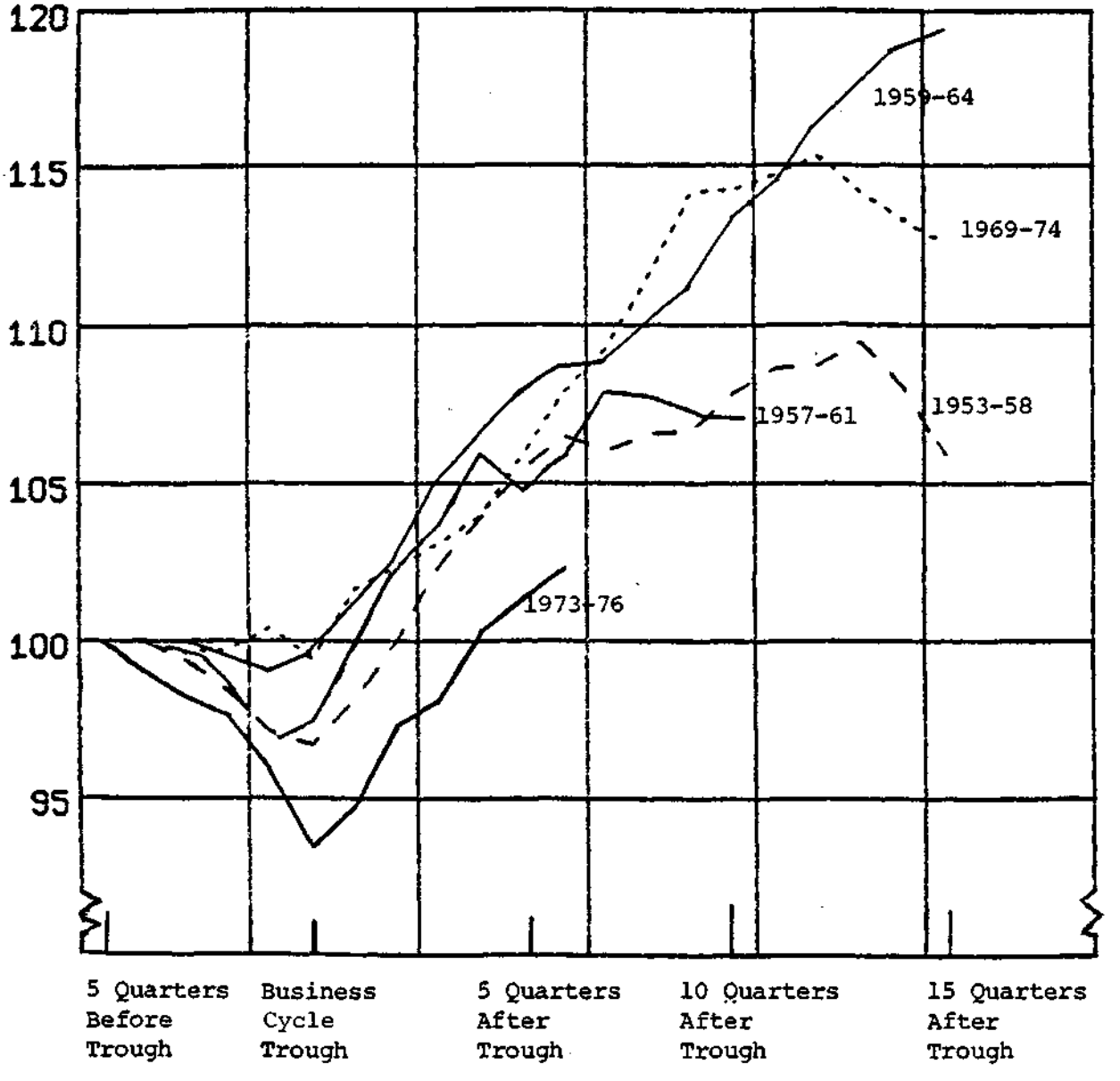
CHAPTER I THE CURRENT ECONOMIC SITUATION

The recession that occurred between late 1973 and early 1975 was the sixth since World War II. It was the longest and deepest of the six, with national output (Gross National Product (GNP) in dollars of constant purchasing power) falling by nearly 7 percent instead of the usual 1 to 3 percent. Deep recessions are often followed by sharp recoveries, and it appeared for a time as if that would be the pattern in 1973-76. Instead, as Figure 1 shows, the recovery rate has been similar to earlier recovery rates, and the output gap below previous cycles which developed during the recession has persisted. It does not now seem at all likely that the economy under current fiscal policy will achieve a 5.5 to 6.0 rate of growth of output or an unemployment rate of 6.2 percent by the end of 1977, as assumed in framing Congressional resolutions in the fiscal year 1977 budget.

During the fall of 1976, economic news was especially disappointing. Retail sales were sluggish, industrial production declined in September and October, and the unemployment rate rose from 7.5 percent at midyear to 7.9 percent in October and 8.1 percent in November. Since then, the news has improved considerably. Retail sales rose strongly in November and were revised upward for October. Production increased sharply in November. Leading indicators suggest further improvements in coming months, including a likely drop in the unemployment rate. The "pause" does not appear to be turning into a recession, as some feared it would.

But recent rapid rates of improvement are not likely to be sustained either, if current fiscal and monetary policies are continued. In part at least, the recent increases represent recovery from the primary and secondary effects of the Ford strike and possibly from the effects of earlier shortfalls in federal spending. These catch-up increases are likely to subside after the first months of 1977, without eliminating the substantial gap between recent economic performance and average output behavior during previous recession-recovery periods.

Figure 1.
INDEXES OF REAL GNP IN FIVE RECESSION-RECOVERY PERIODS
(Business cycle peak = 100)



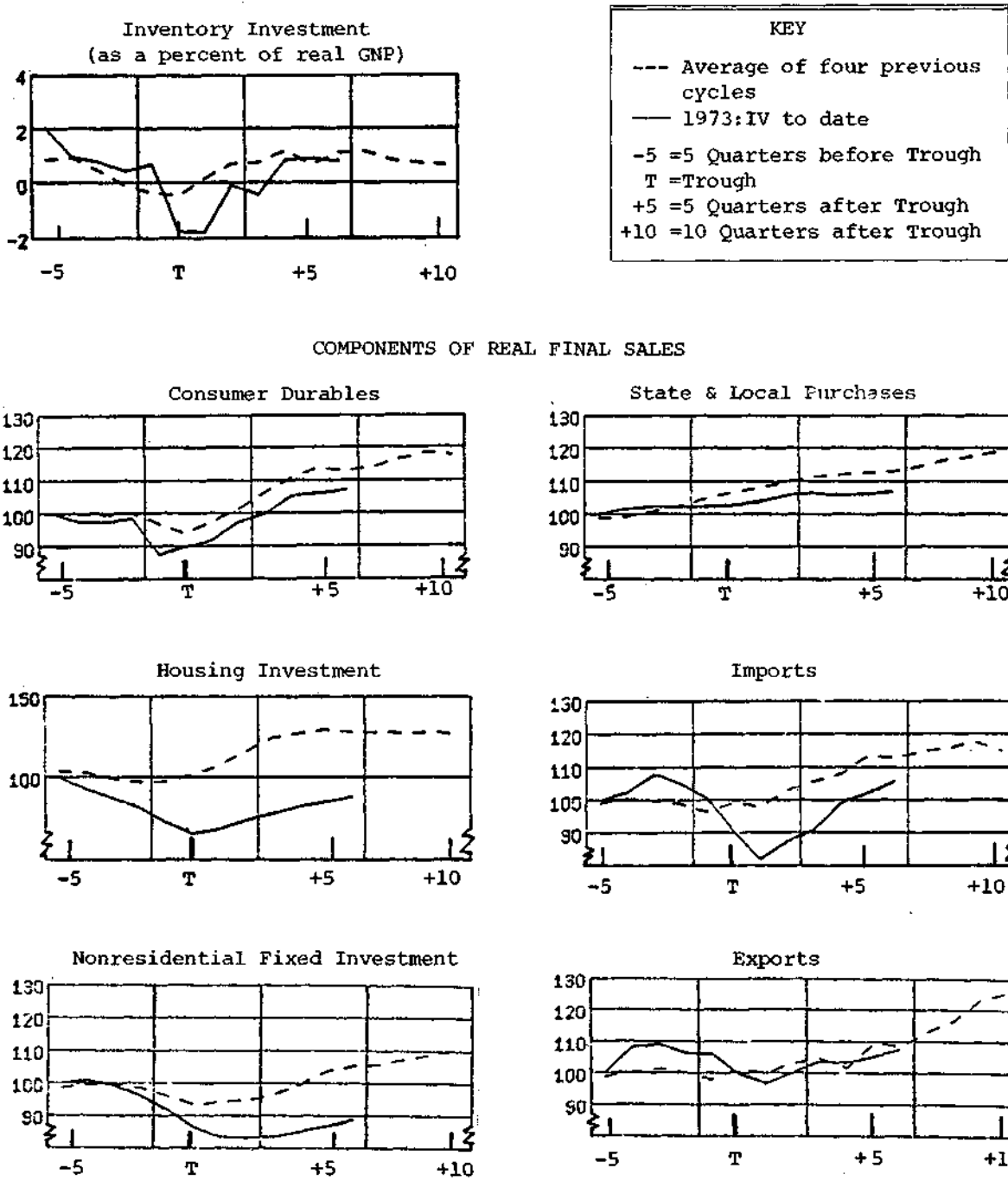
Even if this were a typical business cycle, the historical record would suggest some concern about its durability over the next two years. Figure 1 shows that recovery has come to an end as early as two years after the bottom of a recession and that only one of the four previous recoveries lasted longer than 15 quarters after the trough--an interval which would bring us to the last quarter of 1978 in the current recovery. The duration of previous recoveries thus warns us to look for signs of stagnation or recession by 1978.

THE PERSISTING OUTPUT GAP

Because of the severe 1973-75 recession followed by only a normal recovery, by the sixth quarter of the recovery output (real GNP) was only 2.4 percent above its previous peak level. Normally, the economy has been 6 to 9 percent above its previous peak level by the sixth quarter of recovery, as can be observed in Chart 1. This shortfall of about 5 percent below a normal cyclical performance in real GNP will be referred to as the "output gap." It has caused the unemployment rate to be more than 2 percentage points higher than at a comparable stage in any of the previous postwar recoveries. It has also caused a large amount of unused plant and equipment, with consequent losses in profits and in the growth of the nation's stock of capital.

Not all components of demand have contributed to the current output gap. As the top panel of Figure 2 shows, the unusually high rate of inventory liquidation in 1975 has been reversed and inventory investment was at normal levels in the second and third quarters of this year. When sales turned sluggish in September and October, inventory/sales ratios rose somewhat, though the rise was limited by prompt production adjustments. With the November recovery in sales, it appears likely that inventories are not far out of line with sales. Inventory investment is likely to continue to be a neutral factor on balance, as in the middle stages of previous cycles.

Figure 2.
COMPONENTS OF REAL GNP IN RECESSION AND RECOVERY
(Indexes, business cycle peak = 100, except for inventory investment)



The source of the output gap, then, lies in final sales. Figure 2 shows several strategic components of real (constant-dollar) final demand in the recent period, compared with average performance in the four previous recession-recovery periods.

Consumer spending, by far the largest component of GNP, is one of the sectors running below the level it would have reached in an average postwar cycle. The gap is most marked in spending on durables--shown in the figure--but is also apparent in spending on nondurables. The gap reflects stagnation of real income in recent years rather than decisions by consumers to spend a lower proportion of their incomes. The proportion of incomes spent, in fact, has been rising over the current recession-recovery period. If it had not, the consumer spending gap would be even wider.

The output gap has been large in new housing investment, with most of the gap in multifamily construction rather than single-family building. Recent data show some narrowing of the gap, and building permits and financial flows suggest that the improvement may continue. The longer-run prospects for multifamily housing remain murky, however, with some of the recent strength reflecting a speedup in federally subsidized activities that may not be sustained.

Investment in plant and equipment (nonresidential fixed investment) has been an important source of the gap and seems likely to continue so in the future. Early this autumn, private surveys of corporate spending plans suggested an increase in investment spending in 1977 that would have partly closed the gap. However, the Commerce Department's more comprehensive survey, taken in late October and November, indicates that this planned rise in real investment spending has been postponed if not cancelled, probably because of the recent leveling-off of capacity utilization at relatively low levels. In the first half of 1977, plant and equipment spending in real terms is now anticipated to be little changed from the fourth quarter level of 1976.

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Weak demands by state and local governments also contributed to the severity of the recession and the failure of output to rebound more sharply. The only time that the rate of increase in state and local spending approached previous recovery rates was when federal grants were increasing rapidly in 1975. In early 1976, the flow of federal grants actually declined in current-dollar terms, as governments failed to pick up all the available money. Continued financial difficulties and voter and governmental caution have also contributed to slow growth in real spending. In addition, one factor that used to contribute to steady growth in state and local spending--a growing school population--is no longer present. The sustained fall in the birth rate is now causing a decline in school populations.

Imports have a negative direct impact on GNP since they represent a channeling of demand to foreign rather than U.S. producers and are subtracted from exports in calculating the "net export" component of GNP. The lag in imports has thus helped to reduce the U.S. output gap. Some of the recent high growth in imports reflects stockpiling of oil in anticipation of the OPEC price increase, and import growth may therefore slow down in 1977.

Export demands have grown at a normal rate during the recovery so far. However, they are not expected to expand at anything like the normal rate next year. Any further rise in oil prices will limit the ability of other oil-importing countries to buy U.S. goods. Furthermore, the slowdown in recovery that has been occurring in other industrialized countries will, unless it is soon reversed, curtail their purchases from the United States.

THE ROLE OF THE FEDERAL GOVERNMENT

Federal fiscal policy mitigated the severity of the recession and contributed to the recovery, but some federal actions may have added to instability in the pace of the recovery.

Real federal demands continued to grow as the recession developed, in marked contrast to some earlier periods (after the end of the Korean and Vietnam wars) when falling military spending was a major cause of recessions. Since the bottom of the recession, federal spending (in constant dollars) has on balance continued to grow, but during 1976 it fell significantly short of Congressional targets. This unexpected shortfall helps explain the economic lull which developed after the spring of 1976. If the shortfall ends and federal spending returns to the track set forth in Congressional budget resolutions, this will be a positive factor in the economic outlook for the months ahead.

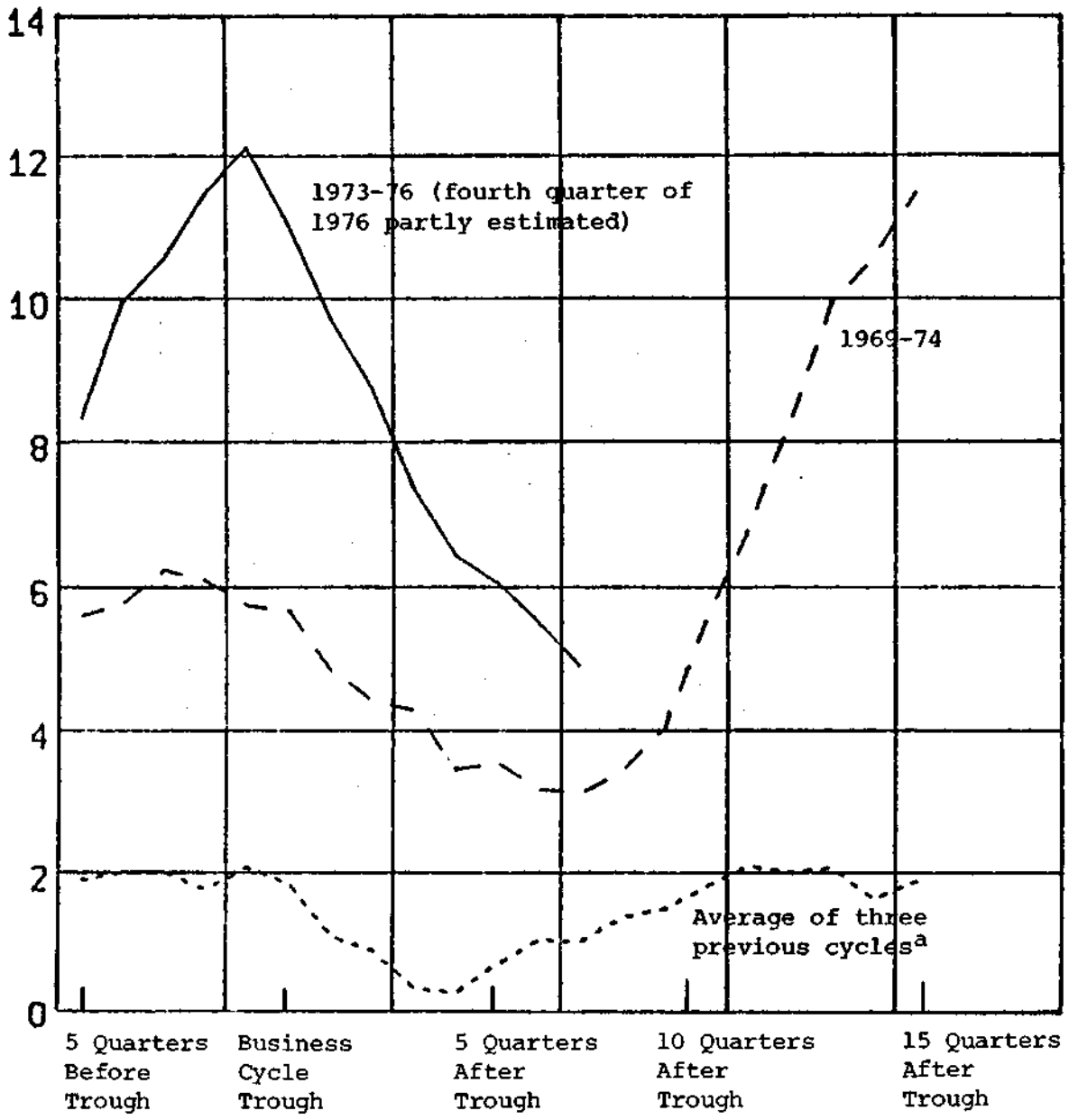
On the revenue side, inflation during 1973-74 increased the size of the tax burden and contributed to the subsequent recession. In 1975, tax reductions restored private-sector real incomes and helped fuel the recovery; since that time, however, personal tax loads have once again been rising faster than incomes.

Some of the tax reduction in 1975 consisted of a rebate on 1974 personal income taxes and other one-time payments. Though little of this money was spent in the quarter in which it was received, much of it appears to have been spent by consumers in subsequent quarters. It thus provided a one-shot stimulus to the economy spread over several quarters. During the period of stimulus, growth rates were higher than they would have been otherwise; but as the effects of the stimulus drew to an end, growth rates were lower than they would have been otherwise. The ending of the effects of the 1975 rebates may be another factor in the 1976 economic lull.

INFLATION DURING THE RECOVERY

The rate of inflation has come down sharply during the current recovery. But as can been seen in Figure 3, inflation remains higher than at the same point in previous recoveries.

Figure 3.
INFLATION IN RECESSION AND RECOVERY
(Percent Change From a Year Earlier in Quarterly Average Consumer Price Index)



a. Recession-recoveries of 1953-58, 1957-61, and 1959-64.

In the three recession-recovery periods of the fifties and early sixties, the behavior of the rate of inflation (specifically, the rate of change from a year earlier in the Consumer Price Index) was somewhat similar, and the average of the three is shown as the bottom line of the chart. From a rate of around 2 percent before the trough, inflation decelerated to near zero during the first year of recovery, and then rose gradually back to 2 percent. This line would probably show a little more acceleration after the first year of recovery if it had not been for the guidelines beginning in 1962.

The middle line on the chart shows inflation during the recession of 1969-70 and up through the third quarter of 1974. Here, inflation started at a higher level but declined by about the usual amount during the first three quarters of recovery. With price and wage controls instituted in the third quarter of recovery, inflation decelerated further for the next year and a half. Then came the devastating acceleration of the 1972-74 period, in which high farm price increases, the ending of price controls, depreciation of the dollar, materials bottlenecks, relatively high levels of output, and finally the OPEC quadrupling of crude oil prices combined to cause the double-digit rates with which the 1973-76 recession and recovery period began.

The most recent period (starting with the business cycle peak in the fourth quarter of 1973 and therefore including the period at the end of the 1969-74 line) is shown as the solid line on the chart. Inflation accelerated during the recession, reaching its peak rate of 12 percent just before the cycle trough. The deceleration since then has been just as dramatic--considerably greater than the normal deceleration during early recovery.

The output gap and its attendant higher levels of unemployment and excess capacity explain relatively little of this reduction in inflation, according to CBO calculations. The principal factors in the decline in inflation have been the ending of the effects of the one-time shocks which hit the economy in 1972-74. Indeed,

two of the shocks have been partly reversed; farm prices have been declining recently, and the value of the dollar relative to ten other major currencies is now significantly higher than it was in early 1975.

CHAPTER II THE OUTLOOK UNDER CURRENT POLICY

In the absence of policy changes, the economy now seems headed for a relatively modest 3.5 to 5.0 percent growth during 1977, with no acceleration in sight for 1978. Growth in this range is likely to keep the unemployment rate above 7 percent during all of 1977 and above 6.5 percent during 1978. The weak economy is also likely to raise the federal deficit in fiscal year 1977 to the $54 to $58 billion range, even without any additional fiscal stimulus. All these are significant departures from what was thought likely a few months ago and what was used in framing the Second Concurrent Resolution on the Fiscal Year 1977 Budget.

This projection, shown in Table 1, rests on the following principal assumptions:

- federal outlays recovering from the 1976 shortfall back to the path assumed in the second concurrent resolution;
- no changes in tax rates;
- monetary growth, as measured by the broadly defined money supply (M_2), near the upper end of the 7.5 to 10 percent range announced by the Federal Reserve, leading to little change in short-term interest rates during 1977;
- increases in consumer food prices averaging 4 percent per year;
- increases in wholesale fuel prices of 11 percent in 1977 and 8.5 percent in 1978;
- growth of about 3.5 percent per year in the constant-dollar volume of U.S. exports.

TABLE 1. ECONOMIC PROJECTIONS BASED ON CURRENT POLICY, 1977-78

Economic Variables	Levels			Rates of Change (percent)	
	1976:4	1977:4	1978:4	1976:4 to 1977:4	1977:4 to 1978:4
GNP (billions of current dollars)	1745 to 1755	1890 to 1950	2040 to 2170	8.0 to 11.0	7.0 to 11.5
GNP (billions of 1972 dollars)	1282 to 1287	1325 to 1350	1370 to 1420	3.5 to 5.0	3.0 to 5.5
General Price Index (GNP deflator, 1972 = 100)	136 to 137	142 to 145	148 to 154	4.5 to 6.0	4.0 to 6.0
Consumer Price Index (1967 = 100)	173 to 174	181 to 184	188 to 195	4.3 to 5.8	3.8 to 5.8
Unemployment Rate (percentage points)	7.9	7.1 to 7.8	6.6 to 7.6	--	--

The forecast is based on a combination of statistical models of the economy, recent information on key variables such as business capital spending plans and consumer attitudes, and CBO staff judgment about key relationships such as inventory-sales ratios and household saving rates.

The projection implies a continuing rate of recovery similar to the average rate from earlier recessions. Since the 1973-75 recession was exceptionally deep, however, the projection also implies that the "output gap" between the current business cycle and earlier ones is likely to persist.

With excess capacity and high unemployment continuing, demand pressures do not seem likely to lead to a reacceleration of inflation. Inflation is projected as well below the double-digit levels of 1974 but little changed from the more modest rates of 1976, which turned out somewhat below what most forecasters had expected. Wage increases are projected to decelerate slightly during the forecast period because of continuing high unemployment; but the deceleration is quite small, due to the persistence of inflationary expectations and to the process of catching up with earlier cost increases. Furthermore, the benefits of this deceleration are offset by continuing price rises for oil and natural gas.

The increase in the deficit from the $50.6 billion of the second concurrent resolution to the $54 to $58 billion now projected is due entirely to a weaker economy. Personal income 2 percent below the assumption at the time of the second concurrent resolution leads to a reduction in individual tax revenues of some $3 billion. Corporate profits are now projected at about 6 percent below the second resolution assumption, causing a loss of about $3 billion in corporate tax revenues.

WHY FORECASTS HAVE WORSENED

Mid-1976 forecasts, including those prepared by the Congressional Budget Office, were significantly more optimistic than the current forecast. The earlier forecasts projected an unemployment rate falling below 7

percent by late 1976 or early 1977, whereas it now seems likely that in the absence of policy changes the unemployment rate will remain above 7 percent during 1977. Earlier forecasts projected growth rates above 5 percent in the second half of 1976 and during 1977, whereas the third-quarter rate is now estimated at 3.9 percent, the fourth quarter rate does not promise much if any improvement, and average 1977 growth rates are projected at 3.5 to 5.0 percent. Thus, actual growth in 1976 was less than forecast, and in addition the forecast growth for 1977 has been revised downward.

Two developments that account for some of the error in forecasting 1976 were the shortfall in federal spending and the Ford strike. The federal shortfall was not clearly recognized at that time, partly because of lags in information and partly because it was erroneously assumed that any shortfalls in the first half of 1976 would be made up in the third quarter. Instead, there was a shortfall during the third quarter as well. The gap in federal spending below Congressional targets, including induced effects on consumer income and state and local government receipts, may have lowered the rate of economic growth by roughly one percentage point (at annual rates) during the second and third quarters.

As for the Ford strike, the fact that the auto collective bargaining contract was about to be renegotiated was of course known at midyear. A strike, however, was not assumed. Even now it is not easy to measure the direct and indirect effects of the strike on supply, demand, and production; but judging by the rebounds now taking place in auto and auto-related areas, these effects were considerable.

The downward revision in the forecasts for 1977 follows, in part, from disappointing news during late 1976. We cannot be sure why capital spending plans have been revised downward, but it seems likely that it is because of lower actual demands and utilization rates. Export demand forecasts have also been revised downward; the worldwide economic lull has lasted longer than was anticipated at midyear, and in addition the ramifications of a continuing large OPEC trade surplus do not appear to have been adequately factored into earlier forecasts.

The rise in the unemployment rate from 7.5 percent at mid-year to 7.9 percent in October and 8.1 percent in November was a surprise to nearly all forecasters. Labor force growth in recent months has exceeded projections, reflecting accelerated growth in labor force participation by adult women. Also, much of the shortfall in federal grants to state and local governments was in employment-intensive programs. Signs now point to a significant decline in unemployment in the months ahead; but it is difficult to anticipate labor force and productivity developments with any precision.

UNCERTAINTIES IN THE FORECAST

The current forecast could of course prove wrong, as mid-1976 forecasts proved to be. Demands could revive at a faster pace than projected, even without policy changes. Alternatively, demand could continue to weaken and cause a new recession.

What would be the signs that the economy is significantly weaker or stronger than the forecast? The unemployment rate is not the best indicator for this purpose, because over short periods of time its relationship to overall economic growth can be erratic. One sensitive indicator would be revisions of investment plans to be reported by the Commerce Department in mid-January and early March. If business spending on plant and equipment turns out significantly higher than the recent plans reported by the Commerce Department, that would be a sign that the economy may exceed the forecast summarized in Table 1, even without additional policy actions. On the other hand, if the January and March reports bring significant downward revisions in investment plans, it is possible that the economy is headed below the forecast.

Auto sales are another sensitive indicator. The forecast summarized in Table 1 assumes a 10 to 11 million unit auto sales year ahead. Currently, auto sales statistics are still difficult to interpret because of possible catch-up from sales losses during the Ford strike. But if domestic and imported auto sales in February and March rise to a 12 million or higher

annual rate, that would be a sign that the economy is significantly stronger than the forecast. On the other hand, if total sales drop to an 8 million rate or lower, a weakening below the forecast could well lie ahead.

Finally, industrial production is forecast to rise at an annual rate of about 8 percent in the winter and spring, partly reflecting a continued rebound from the effects of strikes. If the growth of industrial output should rise above a 10 percent annual rate from December through March or April, that would indicate a stronger economy than the forecast. Growth at an annual rate below 6 percent would indicate an economy more sluggish than the forecast.

CHAPTER III POLICY ALTERNATIVES

In their reports on the Second Concurrent Resolution on the Fiscal Year 1977 Budget, the House and Senate Budget Committees noted that there was growing uncertainty about the economic outlook which might call for additional Congressional action. The Senate Committee report stated that "the Committee is prepared to consider a subsequent resolution early next year [1977] if the economic data received by then do not indicate that the recovery is proceeding satisfactorily."[1] The House Committee report contained similar language.

Since the recovery has not proceeded as projected, this report discusses fiscal policy changes that could move the economy closer to Congressional goals for output and unemployment. The possibilities include temporary and/or permanent reductions in personal income taxes, tax cuts for businesses, increases in public employment programs, and stepped-up revenue sharing and public works. The discussion covers the impact of expansionary policies not only on output and employment but also on inflation and on the federal deficit.

EXPANSIONARY FISCAL OPTIONS

Personal Tax Reductions

A cut in personal income taxes can be enacted promptly and can be put into effect soon after it is enacted. There are many ways to reduce income tax payments, including a one-time rebate, a reduction of tax rates, an increase in the standard deduction, an increase in the personal tax credit that was enacted in 1975, and changes in a host of other provisions.

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1. Report of the Committee on the Budget, United States Senate, to accompany S.Con.Res. 139, 94th Congress, 2nd session, September 1976, p. 15.

From the point of view of stimulating economic activity, one important distinction is between a one-time rebate and a more permanent reduction. There are of course intermediate possibilities, such as a series of rebates or a rate reduction which phases out as unemployment falls; but focusing on extremes is helpful in clarifying the advantages and drawbacks of different approaches. A one-time rebate has the advantage of avoiding the need for long-term decisions about the structure of the tax system. Moreover, it does not sacrifice revenue that might be needed in the future. On the other hand, a temporary tax cut is probably less effective in reducing unemployment than a permanent tax cut of the same size. A higher fraction of a temporary cut (how much higher is not at all settled among economists) is likely to be added to savings rather than be spent on goods and services.

An additional difference is that a temporary cut tends to cause a temporary bulge in economic activity followed by a return to an earlier trend, while a permanent cut tends to shift the level of economic activity upward for a long period. The rebates of 1975, for example, probably raised the economic growth rate during late 1975 and early 1976 but lowered the growth rate as their impact waned in mid-1976. Except when such a one-time bulge is specifically desired, this characteristic argues for using a rebate in conjunction with other policies whose impact builds up gradually as the effects of the rebate fade away.

Business Tax Reductions

There is much less certainty about the effects on real GNP and unemployment of a cut in business taxes than there is about the effects of personal tax cuts. A reduction in the corporate tax rate is simple and can be enacted promptly, but according to most studies it would have relatively small short-run effects per dollar of foregone tax revenue. An increase in the investment tax credit, also a simple change to enact, is generally thought to have a powerful effect on economic activity; but the effect may not be immediate. It might be

possible to speed up the response by making an increase in the investment tax credit temporary rather than permanent, creating incentives to buy now rather than latter.

Other possibilities for reducing business taxes include liberalization of depreciation allowances and an employment tax credit. Higher depreciation allowances are similar in their effects to an increased investment tax credit, but probably more difficult to enact as a temporary change. An employment tax credit--a tax reduction related to the level or change in a firm's employment or payroll--reduces the cost of labor. A tax change of this kind could help fight inflation as well as stimulate economic activity. The quantitative impact of such a credit, however, is even less certain than that of other business taxes.

Spending Increases

To create jobs quickly, larger federal purchases are often more effective per dollar than tax reductions. Since a larger fraction of the stimulus goes into spending rather than saving, there is more hiring in the year or two following the increased purchases (but not necessarily in the long run).

An increase in purchases of goods and services, however, is more difficult to put into effect promptly than a tax cut. Even a specifically antirecession program, such as public service employment, is limited by the time it takes prime sponsors to organize useful projects and hire workers. Acceleration of public works, another antirecession strategy, has been facilitated by the development of a substantial backlog of relatively small-scale project applications; but there remains a substantial time-lag between authorization and the bulk of spending for a typical project.

Lags in federal spending need not be long in the case of grants to state and local governments. The special countercyclical revenue sharing provisions enacted in 1976 distribute financial aid according to a formula that, like tax laws, could be increased easily

and promptly. Since the formula is linked to unemployment rates, increasing countercyclical aid does not commit funds in future years when unemployment rates are lower. To some extent, however, higher revenue sharing simply shifts the problem of delays in spending from the federal government to states and localities. The larger the size of the revenue sharing program, the larger the number of states and localities that are likely to encounter difficulties in spending the money promptly and usefully.

ESTIMATED ECONOMIC IMPACTS

To help the Congress in its deliberations about possible policy changes for fiscal year 1977, this section presents estimated impacts of five fiscal policy changes on GNP, the number of jobs, the unemployment rate, the rate of inflation, and the federal deficit. The estimated impacts are subject to large margins of error, but a choice among fiscal options requires some notion, however uncertain, of what their economic effects are likely to be. The options presented are ones that have been under active discussion recently. On the spending side, there are limits to the speed with which outlays can actually be increased, and these limits have influenced the size of the spending options.

The five options are:

(1) A $16 billion personal tax rebate paid out in the third quarter of 1977, through a retroactive increase in the personal tax credit plus a rebate for nontaxpayers such as most social security recipients.

(2) A $10 billion (annual rate) permanent personal tax reduction beginning in the third quarter of 1977. A doubling of the personal tax credit would be one way to reduce personal taxes by approximately $10 billion per year.

(3) A $5 billion corporate tax reduction starting in the third quarter of 1977, consisting of an increase of 3 percentage points in the investment tax credit (costing approximately $3 billion in direct foregone tax revenues) and a reduction of $2 billion through corporate rate changes.

(4) A $5 billion increase in countercyclical revenue sharing and public service employment during 1977. The countercyclical revenue sharing formula enacted in 1976 would be doubled in the second quarter of 1977, retroactive to the start of fiscal year 1977 (October 1976). (Current outlays under the countercyclical revenue sharing program are $1.3 billion per year.) Budget authority for jobs funded by Titles II and VI of the Comprehensive Employment and Training Act (CETA) would be increased by a $4 billion annual rate with outlays assumed to rise by a $2 billion rate in the third quarter of 1977 and build up to a $4 billion rate by the first quarter of 1978. (The fiscal year 1977 budget authority available for CETA Titles II and VI jobs is currently $1.7 billion although the second concurrent resolution includes approximately $4.2 billion in budget authority for these programs.)

(5) A $6 billion authorization of public works projects in the second quarter of 1977, with outlays increasing by less than half a billion (annual rate) in the initial quarter and slowly increasing to a $3 billion annual rate by the second half of 1978. (Budget authority for countercyclical public works in fiscal year 1977 is currently $2 billion.)

The first two components, the personal tax rebate and the permanent personal tax reduction, have contrasting impacts. The direct budget cost of the rebate is $16 billion in fiscal year 1977 but zero in fiscal year 1978, while the direct budget cost of the permanent reduction rises from $3 billion in fiscal year 1977 (when

it is in place for only one quarter) to $10 billion in fiscal year 1978. As Table 2 shows, this timing contrast carries over to the estimated GNP impact, with the effect of the rebate fading out as the effect of the permanent reduction builds up. Because of the fact that higher GNP produces more revenues and reduces certain kinds of income assistance payments, the net budget costs shown in the last columns of Table 2 are lower than the direct budget costs. Differences between direct costs and net costs are fairly small in fiscal year 1977; but by fiscal year 1978 the rebate is estimated to lower the federal deficit by $3 billion, and the permanent cut to increase it by only seven-tenths of the direct cost.

The remaining three options in the table, like the permanent reduction in personal taxes, all have budget costs and GNP effects which increase from 1977 to 1978. The tax rebate thus complements all of the other program options in the table in the sense that combining a rebate at some level with one or more of the other options can give a smoother pattern of economic effects than any of the options by itself.

The effects of these options on employment and the unemployment rate, shown in Table 3, parallel the GNP effects just discussed. The rebate is estimated to add 500,000 jobs, worth a reduction of about 0.4 percentage points on the unemployment rate, by the fourth quarter of 1977, but only 170,000 jobs or a 0.1 percentage points lower unemployment rate, by the end of 1978. These estimates are based on the assumption that three out of every 10 new jobs are filled by someone joining or rejoining the labor force, with the remaining seven reducing the number of jobless already in the labor force.

The other options all have estimated employment effects which build up from 1977 to 1978. Thus, each of these other options has estimated employment effects which, like its GNP impact, build up as those of the rebate fade out.

The inflationary effects of these options, also shown in Table 3, are estimated to be fairly small. The rebate, because it is only a one-time payment, is estimated to have virtually no effect on the rate of

TABLE 2. EXPANSIONARY FISCAL OPTIONS: ESTIMATED BUDGET COST AND GNP IMPACT
(Billions of Current Dollars)

Options	Direct Budget Cost		GNP Impact (Actual Rate)		Net Budget Cost	
	FY 1977	FY 1978	1977:4	1978:4	FY 1977	FY 1978
1. $16 Billion Personal Tax Rebate in 1977:3	+16	0	+15	+ 8	+15	-3
2. $10 Billion Personal Tax Reduction Starting in 1977:3	+ 3	+10	+ 8	+17	+ 2	+7
3. $5 Billion Corporate Tax Reduction Starting in 1977:3	+ 1	+ 5	+ 2	+10	+ 1	+3
4. $5 Billion Increase in Countercyclical Revenue Sharing and Public Service Employment Phased in during 1977	+ 2	+ 5	+ 5	+ 9	+ 1	+2
5. $6 Billion Authorization for Accelerated Public Works, Spending Rising Slowly to $3 Billion Rate	0	+ 3	+ 3	+ 7	0	+1

Note: The options are described in more detail in the text.

TABLE 3. EXPANSIONARY FISCAL OPTIONS: ESTIMATED EMPLOYMENT, UNEMPLOYMENT, AND INFLATION IMPACT

Options	Impact on Employment (thousands)		Impact on Unemployment Rate (percentage points)		Impact on Rate of Change of Consumer Prices (percentage points)
	1977:4	1978:4	1977:4	1978:4	1979:4 to 1980
1. $16 Billion Personal Tax Rebate in 1977:3	500	170	-0.4	-0.1	0.0
2. $10 Billion Personal Tax Reduction Starting in 1977:3	110	350	-0.1	-0.3	0.1 to 0.2
3. $5 Billion Corporate Tax Reduction Starting in 1977:3	10	190	0	-0.1	0.1 to 0.2
4. $5 Billion Increase in Countercyclical Revenue Sharing and Public Service Employment Phased in during 1977	260	410	-0.2	-0.3	0.1 to 0.2
5. $6 Billion Authorization for Accelerated Public Works, Spending Rising Slowly to $3 Billion Rate	40	140	0	-0.1	0.1

Note: The options are described more fully in the text.

inflation. Each of the other options has an inflationary effect which builds gradually to an estimated 0.1 to 0.2 percentage points by 1980.[2] In other words, if inflation under current policy were 4.5 percent in 1980, enactment of one of the last four options would raise it to an estimated 4.6 to 4.7 percent. These estimates reflect the view that expansionary policies at a time of substantial unemployment and excess capacity are much less inflationary than these same policies would be in a high-employment economy.

Since there are numerous ways in which these options or fractions of them could be combined into an overall fiscal program, a discussion of combinations is necessarily limited to a few illustrations. One possibility, a relatively modest tax package, would consist of exactly half of each of the first three options--the temporary and permanent personal tax changes and the corporate tax reduction. The estimated effects of this and the other two fiscal policy packages are shown in Table 4. The direct budget cost of this package would be $10 billion in fiscal year 1977 and $8 billion in fiscal year 1978. The net budget cost, allowing for the effects of the economic stimulus on tax revenues and income support outlays, would be approximately $9 billion in fiscal year 1977 and $4 billion in fiscal year 1978. The package would add an estimated 310,000 jobs by the fourth quarter of 1977, which would lower the unemployment rate by 0.25 percentage points below the no-policy-change estimates of 7.1 to 7.8 percent at the end of 1977. For the end of 1978, the corresponding figures are 355,000 jobs and again 0.25 percentage points on the unemployment rate. The effect on inflation would be to add 0.1 to 0.2 percentage points to the rate of price increase by 1980.

Somewhat larger economic stimulus would be provided by adding to the tax package just described the revenue sharing, public employment, and public works options in the last two lines of Tables 2 and 3. This package would add $12 billion in direct budget cost, or $10 billion

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2. Estimates are based on a simplified two-equation wage-price model. A description is available from the Fiscal Analysis Division, Congressional Budget Office.

TABLE 4. ILLUSTRATIVE COMBINATIONS OF EXPANSIONARY FISCAL OPTIONS

Selected Impacts	Combination #1; Half of Three Tax Options	Combination #2; #1 Plus Two Spending Options	Combination #3; All Five Tax and Spending Options
1977 Impact:			
Direct Budget Cost, fiscal year ($ billions)	+10	+12	+22
Net Budget Cost, fiscal year ($ billions)	+9	+10	+19
Employment, 4th Quarter (thousands)	+310	+610	+920
Unemployment Rate, 4th Quarter (percentage points)	-0.25	-0.45	-0.70
1978 Impact:			
Direct Budget Cost, fiscal year ($ billions)	+8	+16	+23
Net Budget Cost, fiscal year ($ billions)	+4	+7	+10
Employment, 4th Quarter (thousands)	+355	+905	+1260
Unemployment Rate, 4th Quarter (percentage points)	-0.25	-0.65	-0.90
1980 Impact, Inflation Rate (Rate of change of consumer prices from 1979:4 to 1980:4, percentage points)	+0.1 to 0.2	+0.3 to 0.5	+0.4 to 0.7

after taking account of the GNP impact on taxes and income support payments, in fiscal year 1977. The corresponding figures for fiscal year 1978 would be $16 billion direct cost and $7 billion net budget cost. Employment effects would add to an estimated 610,000 jobs at the end of 1977 and 905,000 at the end of 1978, lowering the unemployment rate 0.65 percentage points below the 6.6 to 7.6 current policy estimate by the end of the latter year. The estimated inflationary impact of this package would add 0.3 to 0.5 to the inflation rate by 1980.

Both of the illustrative packages just discussed include only half of the tax reduction amounts on the first three lines of Tables 2 and 3. Still greater economic stimulus would be provided by simply adding all of the options in the tables, at full strength. The direct budget cost of this option would be $22 billion in fiscal year 1977, with a net budget cost estimated at $19 billion. In fiscal year 1978 the corresponding estimates are $23 billion direct cost and $10 billion net cost. The estimated number of jobs created by this package is 920,000 by the end of 1977 and 1,260,000 by the end of 1978, lowering the unemployment rate by 0.9 percent below the current policy range of 6.6 to 7.6 for the latter period. The estimated impact on the 1980 rate of inflation ranges from a low of 0.4 percentage points to a high of 0.7 percentage points; in other words, if the no-policy-change inflation rate were 4.5 percent, the package consisting of all the options in Tables 2 and 3 would raise it to an estimated 4.9 to 5.2 percent.

THE FEDERAL DEFICIT

The expansionary fiscal packages just described would lead to a higher federal deficit. Even with no change in fiscal policy, the weaker economy than was expected at the time of the second concurrent resolution is likely to lead to a deficit of $54 to $58 billion rather than the $50.6 billion in the resolution. The first of the three packages--half of each of the three tax cut options--would raise the estimate to $63 to $67 billion. The second fiscal package would raise the estimate to $64 to $68 billion or about the same as the

deficit in fiscal year 1976. The third option would raise the deficit to $73 to $77 billion.

The prospects for reducing the deficit over the longer run depend on economic growth and on the policies necessary to achieve growth. In itself, economic growth reduces the deficit through increasing personal and business income and thereby increasing tax revenues. However, if high growth is achieved in part through tax reductions and/or injections of government spending, the increases in the deficit due to these measures may offset the deficit reduction flowing from higher growth.

We simply do not know which way these two effects will balance out over the next few years. The long-term historical record suggests that an unemployment rate much lower than the current one has often been compatible with a federal budget close to balance. At the present time, however, it appears likely that nonfederal demands in the aggregate are sufficiently weak so that a high federal deficit is required to obtain significant reductions in unemployment.

MONETARY POLICY

How the Federal Reserve System reacts to changes in fiscal policy has a major influence on policy impacts. The impact estimates just presented assume that monetary authorities do not change their open-market purchases or sales or the interest rate at which they lend to commercial banks in reaction to fiscal policy changes. Under these circumstances, the expansionary fiscal moves described would lead to a modestly higher money supply and, for a time, to moderately higher short-term interest rates than a continuation of current fiscal policies.

If instead of the unchanged open-market policy assumed the Federal Reserve adhered strictly to a monetary growth path, then it would offset some of the effects of expansionary fiscal policy on economic growth and unemployment, and eventually on inflation as well. An increase in interest rates would be required to prevent

higher money demands from calling forth a larger money supply, and higher interest rates would reduce private borrowing and spending.

In contrast, if the Federal Reserve took steps to keep interest rates from rising in response to fiscal policy moves, it would reenforce the expansionary impact. Growth would be higher and unemployment lower at first, and the inflation rate would eventually be higher. Thus, the way in which monetary policy reacts to fiscal policy has important effects on the impact of fiscal policies.

Monetary policy has implications not only for unemployment and inflation but also for the composition of output as divided among consumption, investment in capital goods, and government services. Economic expansion achieved through monetary policy instead of fiscal policy tends to reduce the proportion of output devoted to consumption and/or government and increase the proportion devoted to investment in business capital and new housing, with favorable long-run effects on productivity and on the quality of the housing stock. The federal deficit also tends to be lower in an expansion achieved through monetary policy than in one fueled by fiscal policy.

While these effects would be viewed by many as favoring monetary expansion in preference to fiscal expansion, there are disadvantages to monetary expansion as well. One disadvantage is that monetary policy often operates with very long lags. As a result, an expansionary move large enough to have a sizable impact on the economy by 1977 and 1978 may well have a still larger impact in later years, when the needs of the economy are much less certain.

Another disadvantage of using monetary policy for short-run stabilization is that the economy appears to be undergoing sizable shifts in the usual relationships among money, interest rates, and incomes. The supply of currency and checking accounts has grown by much less than GNP in the last two years, and yet short-term interest rates have not been forced up as usually happens

under these circumstances. Until these shifts are understood, there will be even more than the usual uncertainty about the effects of monetary policy on the economy. At the present time it is very difficult even to guess at the degree of monetary expansion it would take to move the economy back to Congressional goals and assumptions for output and unemployment.