

January 9, 1981

Gauging Fiscal Policy: I

The incoming Reagan administration is committed to cutting tax rates and non-defense expenditures, while increasing defense expenditures. Lower tax rates would strengthen incentives for suppliers of labor and capital, and might therefore eventually speed economic growth from the supply side. Combined with lower expenditures, such tax cuts also could ultimately be consistent with a budget that does not preempt saving from private capital formation. But the Federal budget deficit may initially increase rather than decrease, because of the lag that could be expected in bringing nondefense expenditures under control, at a time when defense expenditures were being raised and taxes were being reduced.

Even if tax cuts are successful in stimulating economic growth from the supply side, fiscal policy will continue to affect capital markets and aggregate demand. Given the rather large and uncertain budgetary changes in prospect, we should try to gauge the size of these more traditional impacts of fiscal policy as the new Administration's program unfolds. The generally accepted measure in this area is the surplus or deficit in the high-employment budget—the size of the budget surplus or deficit when the economy is operating at a "natural" (full employment) rate of unemployment.

Unfortunately, this indicator of fiscal policy is subject to problems of both concept and measurement. One important conceptual problem is the question of what should be included on both the expenditures and receipts side of the budget. An equally serious measurement problem relates to the need to infer the natural rate of unemployment by means of econometric modeling, since it is not directly observable. In this article, we examine the rationale of the high-employment budget and then consider the differences created by alternative assumptions about the natural rate of unemploy-

ment. In a second article, we consider certain factors—additions to both the expenditures and receipts sides of the budget—that should be included in any such analysis.

Budget rationale

Budget analysts introduced the concept of the high-employment budget into policy discussions during the early 1960's, for the purpose of separating the effect of the economy on the Federal budget from the impact of discretionary fiscal-policy changes. Higher levels of economic activity boost tax receipts and reduce some expenditures, such as unemployment compensation; and lower activity does the opposite. These induced changes in receipts and expenditures act as automatic stabilizers by helping to reduce the economy's response to any shift in total spending, but they do not themselves represent independent sources of stimulus or restraint. By measuring the budget surplus or deficit at a constant rate of unemployment, analysts can remove cyclically-induced changes in expenditures and receipts from their calculations. The resulting surplus or deficit is a rough measure of the budget's contractionary or expansionary influence on the level of total spending. A budgetary surplus indicates a "tight" fiscal policy, in the sense that the budget tends to add less to aggregate spending than it takes away, whereas a deficit implies an "easy" fiscal policy in a reverse sense.

Fiscal policy affects output and employment in the short run—and by a multiple of the deficit or surplus if monetary policy is accommodating by providing sufficient money to stabilize interest rates. But if the Federal Reserve instead holds to a fixed money-supply target, the fiscal stimulus or restraint has a much smaller impact on total spending, and therefore on output and employment. In the case of a deficit, the debt issues required to finance the deficit bid up interest rates in capital markets, which in turn discourage

Research Department

Federal Reserve Bank of San Francisco

Opinions expressed in this newsletter do not necessarily reflect the views of the management of the Federal Reserve Bank of San Francisco, nor of the Board of Governors of the Federal Reserve System.

private investment spending. On the other hand, in the case of a budget surplus, the lower interest rates induced by debt retirement stimulate private investment spending, which provides some offset to the budget's restrictive effect on aggregate spending. However, with a given stock of money, the investment-spending offset to fiscal stimulus or restraint is less than complete in the short-run. The resulting impact on total spending is accommodated by movements in the velocity of money circulation caused by the changes in interest rates.

From the point of view of short-run stabilization policy, the important thing is not whether the high-employment budget is currently in surplus or deficit, but rather in what direction the budget is moving. This is because most of the effects of the current deficit or surplus on current output and employment have already been felt. Thus, a surplus in the high-employment budget doesn't mean that fiscal policy is currently slowing the economy, but only that it helped slow it down in the past. In short, the *change* in the high-employment budget measures whether fiscal policy is *currently* propelling the economy forward or restraining it. Movement towards a lower surplus or larger deficit indicates greater fiscal stimulus—an easier policy tending to expand current output and employment—and the reverse signifies a tighter fiscal policy tending to slow economic activity.

As indicated above, budget deficits can "crowd out" a certain amount of private capital formation even in the short run (before wages and prices fully adjust), provided the central bank holds to a fixed monetary target. Over a longer period, an easier fiscal policy (even with monetary accommodation) doesn't stimulate output and employment at all, but only creates an equal amount of crowding out. For example, a shift to an easier fiscal policy can expand output and employment for a time. But the resulting pressure on wages and prices must lead to an increased demand for a given stock of money, which raises interest rates until

economic activity falls back to where it was before. At this point, the increased fiscal stimulus will be completely offset by the decline in private investment spending caused by higher interest rates. Even with monetary accommodation of the stimulus, additional money simply raises wages and prices further, and does not affect output and employment in the longer run.

Consequently, the *level* of the high-employment budget measures the degree of crowding out that can be expected if the current fiscal policy is permanently maintained. A high-employment deficit registers the average amount of credit that would be preempted by the Federal budget. On the other hand, a high-employment surplus indicates the amount of private capital formation stimulated in the long run by the extra credit made available through the retirement of government debt.

Which unemployment rate?

In theory, the high-employment budget should be calculated on the basis of the "natural" rate of unemployment, which is the unemployment rate towards which the economy gravitates in the long run. However, this number is not directly observable, but instead must be estimated. We know that the natural rate of unemployment has tended to rise over time as a consequence of a number of changing demographic and legislative factors, but we don't know the exact size of the rate. The official calculation of the high-employment budget assumes an unemployment rate of 5.1 percent. However, recent estimates by Phillip Cagan, Robert Hall, Alfred Tella and others suggest that the figure actually should be in the range of 6.0 to 6.5 percent.

We can estimate the size of the high-employment budget at a 6.5-percent unemployment rate by linear interpolation from the historical differences between the high-employment budget and the actual budget. Raising the assumed natural rate to 6.5 percent substantially increases a deficit or

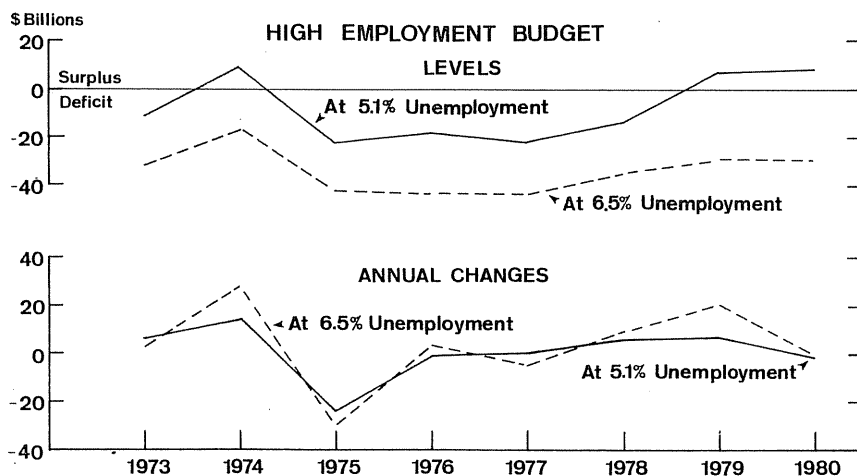
reduces a surplus (see chart). For example, in 1979 the high-employment budget (national-income accounts basis) would have been in deficit by \$29.2 billion, compared to an officially recorded surplus of \$6.9 billion. The deficit has been understated in past years also. The high-employment budget since 1973 has generated an average annual deficit of \$33.7 billion, instead of the officially calculated \$7.6 billion average deficit. Since the *level* of the high-employment budget measures the amount of permanent crowding out, the budget as currently calculated apparently greatly understates the extent of discouragement of private capital formation.

Changes in the high-employment budget, in the short run, indicate changes in the degree of fiscal stimulus or restraint applied to aggregate demand, and in the longer run, indicate changes in the amount of crowding out. But the use of a more realistic unemployment rate basically makes only a level adjustment, and makes little difference in year-to-year changes in the high-employment budget (see chart). Both of these measures of the high-employment budget indicate fiscal tightening

in 1974 and then easing in 1975. Both also show a relatively neutral effect on aggregate demand during the next two years, but show tightening again in 1978 and 1979, and little change in 1980.

While the assumed unemployment rate makes little difference to measured changes in the degree of short-run fiscal stimulus or restraint applied to aggregate spending, it can have a substantial effect on the calculated amount of credit permanently preempted by the Federal budget. Indeed, the high-employment budget—measured at a 6.5-percent unemployment rate—indicated about \$29.5 billion of crowding out in 1980. This suggests that if the new administration wishes to spur growth, it should take strong steps to reduce expenditures or increase tax receipts in order to eliminate this current drag on private capital formation. However, actual crowding out would be of this magnitude only if expenditures and receipts were measured on a realistic conceptual basis. These conceptual problems are examined in our next *Weekly Letter*.

Adrian W. Throop



Research Department
Federal Reserve
Bank of
San Francisco
 Alaska • Nevada • Oregon • Utah • Washington
 Idaho • California • Hawaii

BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT

(Dollar amounts in millions)

Selected Assets and Liabilities Large Commercial Banks	Amount Outstanding 12/24/80	Change from 12/17/80	Change from year ago	
			Dollar	Percent
Loans (gross, adjusted) and investments*	146,510	196	8,077	5.8
Loans (gross, adjusted) — total#	124,223	200	8,700	7.5
Commercial and industrial	36,959	— 90	3,365	10.0
Real estate	49,985	70	6,671	15.4
Loans to individuals	24,144	207	— 297	— 1.2
Securities loans	1,496	173	252	20.3
U.S. Treasury securities*	6,689	— 37	— 590	— 8.1
Other securities*	15,598	33	— 33	— 0.2
Demand deposits — total#	46,298	109	2	0.0
Demand deposits — adjusted	32,253	— 757	— 1,610	— 4.8
Savings deposits — total	27,619	— 807	— 889	— 3.1
Time deposits — total#	73,618	2,639	14,630	24.8
Individuals, part. & corp.	63,772	2,139	13,642	27.2
(Large negotiable CD's)	29,451	1,390	7,610	34.8
Weekly Averages	Week ended	Week ended	Comparable	
of Daily Figures	12/24/80	12/17/80	year-ago period	
Member Bank Reserve Position				
Excess Reserves (+)/Deficiency (—)	n.a.	n.a.		28
Borrowings	130	127		64
Net free reserves (+)/Net borrowed(—)	n.a.	n.a.		— 35

* Excludes trading account securities.

Includes items not shown separately.

Editorial comments may be addressed to the editor (William Burke) or to the author . . . Free copies of this and other Federal Reserve publications can be obtained by calling or writing the Public Information Section, Federal Reserve Bank of San Francisco, P.O. Box 7702, San Francisco 94120. Phone (415) 544-2184.