CBO PAPERS

BUDGET ESTIMATES: CURRENT PRACTICES AND ALTERNATIVE APPROACHES

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PREFACE

The Congressional Budget Office (CBO) has prepared this paper as background for a joint hearing on budget estimation procedures to be held by the House and Senate Committees on the Budget. The paper reviews current methods for estimating the budgetary effects of proposed changes in revenues and spending and examines the pros and cons of alternative approaches.

The paper was written by the staffs of CBO's Budget Analysis, Macroeconomic Analysis, and Tax Analysis Divisions, and the General Counsel. Sherry Snyder edited the manuscript, and Kathryn Quattrone prepared the final version of the paper.

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SUMMARY AND INTRODUCTION

The Congressional Budget Act of 1974 requires the Congressional Budget Office (CBO) and the Joint Committee on Taxation (JCT) to provide estimates of the budgetary effects of all legislative proposals reported by a Congressional committee. The act assigns JCT the responsibility for preparing the estimates of most revenue legislation, and CBO does the estimates of spending proposals.

Since the inception of the Congressional budget process in 1975, the House and Senate budget committees have used these estimates to assess whether a bill would breach the spending or revenue totals in the budget resolution or would be subject to a point of order on the floor of the Congress.[1] More recently, the budget committees have also used them to monitor Congressional compliance with the requirements of the Budget Enforcement Act of 1990. That act placed dollar limits on discretionary budget authority and outlays and established a pay-as-you-go (PAYGO) requirement; under PAYGO, changes in legislation affecting revenues and mandatory spending, in total, may not increase the deficit in any year. In 1993 and 1994, the Senate used CBO's and JCT's estimates to enforce procedural rules requiring that legislation not increase the deficit in the budget year, the first five years (starting with the budget year), and the second five years. As additional constraints have been added to the Congressional budget process, the estimates have become increasingly important.

The Balanced Budget Act of 1985, as amended by the Budget Enforcement Act, also assigns important estimating responsibilities to the Office of Management and Budget (OMB) in the executive branch. OMB, in turn, depends on the Department of the Treasury for its revenue estimates. At the end of each Congressional session, OMB tabulates the estimated effect of all legislation subject to the pay-as-you-go requirement. If OMB determines that legislation has added to the deficit, it must order an across-the-board reduction (or sequestration) in all nonexempt mandatory spending programs sufficient to eliminate the excess. Similarly, if OMB estimates that the discretionary spending limits have been breached, it must order a sequestration of spending authority for nonexempt discretionary programs.

CBO, JCT, OMB, and the Treasury employ the same basic estimating conventions. Those conventions are simple and practical but not without their limitations. They have served best when changes in policy have been small and when concern has been focused on the budget totals. Their limitations are most apparent when policymakers are considering substantial changes or when they are interested in identifying the full effects of individual proposals.

1. A point of order is an objection raised on the House or Senate floor to an action that would violate the body's rules. Usually, a point of order may be waived by a majority vote. In the Senate, however, waiving a point of order for a violation of the Budget Act usually requires a three-fifths vote.

Current budget enforcement procedures reflect these basic estimating assumptions. As specified by the budget committees, CBO's estimates of spending proposals and JCT's revenue estimates have been consistent with the economic assumptions used in preparing the annual budget resolution. As required by the Balanced Budget Act, OMB's PAYGO estimates must use the economic assumptions underlying the President's budget submission. The economic assumptions associated with the budget resolution and the President's budget have been reasonably consistent with the respective tax and spending proposals, as well as the resulting fiscal policy. If the proposals are adopted, that approach produces estimates of total revenues and outlays that correctly reflect the new fiscal policies. But the procedure does not attempt to measure the full incremental cost or savings of an individual proposal that would affect the economic aggregates--for example, gross domestic product (GDP) or the price level.

The budget estimates are also based on numerous assumptions about the microeconomic effects of the proposed policies--that is, how those policies might change individual behavior in response to new economic incentives. These behavioral and other technical estimating assumptions cover a wide variety of effects and reflect recent research and the best available estimating practices. For example, the estimate of a proposal to subsidize health insurance for early retirees would include the cost associated with the increase in the number of Social Security beneficiaries that would occur. Similarly, the estimate of a proposal to increase the excise tax on tobacco products would take into account the resulting decrease in consumption of cigarettes.

For the vast majority of bills the Congress considers, these estimating conventions are accepted and noncontroversial. Disputes occasionally arise, however, in two sorts of situations. First, estimators sometimes differ in their assumptions about the size of the microeconomic responses. In 1990, for example, the Bush Administration and JCT had different estimates of the Administration's proposal to reduce the tax rate on capital gains. Although the Administration and JCT assumed similar types of behavioral responses, the former estimated an increase in receipts and the latter a reduction. The Administration believed that reducing the tax rate on capital gains would permanently increase realizations of gains by enough to offset the revenue loss from the lower rate. JCT judged that after an initial surge, the increase in realizations would offset much but not all of the rate reduction.[2]

2. Congressional Budget Office, *How Capital Gains Tax Rates Affect Revenues: The Historical Evidence* (March 1988); Joint Committee on Taxation, *Explanation of Methodology Used to Estimate Proposals Affecting the Taxation of Income from Capital Gains*, JCS-12-90 (March 27, 1990).

Second, although enactment of some proposals might affect the overall economy, the estimates traditionally exclude macroeconomic responses. Some tax or spending bills might affect aggregate demand (that is, total spending in the economy) and, if not offset by changes in monetary policy, restrain or stimulate the economy in the short run. Other proposed legislation could alter the supplies of labor, capital, or technology that determine the potential growth of the economy in the long run. In both cases, use of the economic assumptions underlying the budget resolution or the President's budget could lead to an over- or underestimate of the budgetary effects of the proposal. Whether the full budgetary effects of a proposed policy change are attributed to the bill or included in the economic assumptions can make the difference between whether the bill can pass on a simple majority or whether it needs 60 votes in the Senate. It can also determine whether OMB is required to order a PAYGO sequestration.

In theory, estimators could incorporate macroeconomic effects into budget estimates, thereby providing more information to the Congress and a more comprehensive basis for pay-as-you-go scoring. But in practice, such a change would also raise several difficult issues.

- The results could depend greatly on assumptions about the behavior of the Federal Reserve Board.

- In situations in which little consensus exists on the magnitude of the macroeconomic effects, the estimates would be subject to considerable controversy and uncertainty.

- The macroeconomic effects occurring within the usual five-year estimating period might not accurately represent the proposal's long-term economic gains or losses.

- For many bills, preparing estimates would take substantially more time and require more resources.

- Counting macroeconomic effects for only some bills could reduce delays, but that approach would raise serious problems of consistency and fairness.

- To make the budget process consistent with the new estimating approach, the Congress would have to change the Congressional Budget Act and the Balanced Budget Act to reflect the interrelated effects of tax and spending proposals.

Including a proposal's macroeconomic effects in budget estimates is sometimes described as "dynamic," as opposed to "static," estimating. As has been indicated,

however, the estimates of CBO, JCT, and OMB are not static in that they already incorporate a wide variety of behavioral changes in response to changes in economic incentives. Therefore, the labels "dynamic" and "static" are misleading and are not used in this paper.

CURRENT ESTIMATING PRACTICES

A consistent basic approach for estimating the budgetary effects of legislation has been used since the Congressional budget process began in 1975. The conference report accompanying the annual budget resolution sets forth the economic assumptions on which it is based. Typically, the resolution specifies assumptions for real and nominal GDP, the consumer price index, the unemployment rate, and short- and long-term interest rates. The estimates of proposed legislation prepared by CBO and JCT employ the macroeconomic assumptions specified in the budget resolution as well as a host of behavioral and other technical estimating assumptions.

Macroeconomic Assumptions

The House and Senate budget committees choose the economic assumptions for the budget resolution. In many cases they have chosen the forecast that CBO publishes in January or February with its baseline budget projections. If the committees do not choose the CBO forecast, they generally pick the Administration's forecast, which is a post-policy forecast--that is, it takes into account the macroeconomic effects of the President's budget proposals. Although CBO's forecast is normally based on laws already in place, the budget committees have presented it in the conference report on the budget resolution as if it were a post-policy forecast. In most years, the macroeconomic effects of the policies implicit in the budget resolution would be small over the five-year budget horizon, so the practical difference between a pre-policy and a post-policy forecast would not be significant.[3]

In the few years when the policy changes envisaged in the budget resolution have been large and likely to have significant economic effects, the budget committees have requested that CBO incorporate proposed policy changes in its economic forecast. Such a request was issued in the summer of 1990 in anticipation of the Omnibus Budget Reconciliation Act of 1990. In a few cases, the budget

3. Even though CBO's forecasts have normally excluded the macroeconomic effects of policy changes, they stand up well in comparison both with the Administration's forecasts and with private forecasts. In effect, at least for the first two years, policy changes have not loomed large in comparison with other sources of error in economic forecasts. See Congressional Budget Office, *The Economic and Budget Outlook: An Update* (August 1994), Appendix A.

committees themselves have modified the CBO forecast. In the budget resolution for fiscal year 1983, for example, the committees chose to assume lower interest rates than were in the CBO forecast, in order to reflect the anticipated effect of the Tax Equity and Fiscal Responsibility Act of 1982.

Because the budget committees include the effects of their proposed policy changes in the economic assumptions of the budget resolution, CBO and JCT do not consider the macroeconomic effects of individual bills when they estimate their budgetary impact. As long as the macroeconomic effects are considered in one place or the other, however, the policies envisaged in the budget resolution will have the same bottom-line effect on the deficit. The current practices are consistent with the whole set of policies in the budget resolution and give a clear picture of their budgetary effects, but they cannot give as complete a picture of the effects of individual policies. Those practices do not give appropriate credit to policies that could strengthen the economy and increase the tax base, nor do they charge policies that could weaken the economy and erode the tax base.

The economic impact of policies can be shown by means other than cost estimating--for instance, committee hearings and reports, and analyses by Congressional staff and others. CBO has often been asked to analyze the economic effects of proposals. Recently, for example, CBO did a comprehensive analysis of the effects of the North American Free Trade Agreement (NAFTA) and examined the economic effects of the Administration's health care proposal. Such reports, however, sometimes have less weight in the political debate than CBO's or JCT's estimates of a proposal. The introduction of the PAYGO rules in 1990 and the additional points of order in the Senate have also raised the stakes for estimating bills and made it more critical that all of a policy's effects be included in the cost estimate. The following two sections provide further details on how estimates of spending and tax proposals are currently prepared.

Estimates of Spending Proposals

Estimates of proposals to change mandatory spending programs take into account a wide variety of programmatic interactions and behavioral responses. In general, CBO's aim is to include all of the effects of a proposal that can be estimated with sufficient confidence and precision, as long as the effects do not involve changing the macroeconomic aggregates specified in the budget resolution. An estimate might assume, for example, that incentives for early retirement cause some federal employees to start drawing retirement benefits, that reductions in reimbursement rates for physicians are partially offset by an increase in the volume of services provided, that training and work programs for recipients of Aid to Families with Dependent Children help some people leave welfare faster, or that farmers increase

plantings in response to higher support prices. The following descriptions illustrate the kinds of changes that are included in cost estimates in four different areas of the budget--health care, debt management, farm price supports, and the Social Security earnings test.

Health Care. During the past year, CBO and JCT have analyzed a variety of health reform proposals--the Administration's plan, single payer, managed competition, the House bipartisan proposal, and several others.[4] All of the proposals would have increased the demand for health care services. Several of the proposals would have encouraged a reallocation of workers among firms, as workers sought jobs that would provide them with a larger combined amount of cash wages, fringe benefits, and federal subsidies. Both of those microeconomic responses would increase the cost of health reform, and CBO took both into account when preparing its estimates. For consistency with the assumptions of the budget resolution, however, the estimates assumed that total employment in the economy would not change. For example, by requiring employers to contribute to the cost of their employees' health insurance, the Administration's health proposal would have discouraged some workers from working and would have promoted early retirement. CBO estimated that the President's proposal would have reduced the supply of labor by between 0.25 percent and 1 percent. Had CBO included that macroeconomic effect in the estimate, tax revenues would have been between $6 billion and $20 billion lower in 2000.

Debt Management. To estimate federal debt and interest costs, CBO uses a versatile model that integrates assumptions about future deficits, interest rates, and the mix and seasonality of borrowing.[5] The model projects changes in the debt for up to six years by rolling over the current debt as it matures and adding new debt as determined by assumptions about the deficit and borrowing. Most legislation affects interest costs only indirectly--through its effect on the deficit. Furthermore, the Treasury has fairly wide latitude to manage the debt as it sees fit, so the debt is rarely the target of legislation. But a few bills would directly affect the cost of financing the debt. For example, if altering the return on savings bonds made those instruments significantly more or less attractive to investors, it would reduce or increase the Treasury's need to borrow elsewhere in the market. That shift would in turn raise or lower the Treasury's borrowing costs, depending on the relative yields of savings bonds and marketable securities. The effect of such a change in the Treasury's borrowing mix would be included in CBO's cost estimate.

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4. See, for example, Congressional Budget Office, *An Analysis of the Administration's Health Proposal* (February 1994).

5. Congressional Budget Office, *Federal Debt and Interest Costs* (May 1993).

In contrast, other debt management proposals have been advanced with the intention of altering the relation between short- and long-term interest rates or changing the overall level of interest rates in the economy. Although the effects of any changes in interest rates would not be included in a cost estimate because doing so would be inconsistent with the interest rates assumed in the budget resolution, economic research suggests that such effects would be negligible in any event.

Farm Price Supports. CBO's estimates of proposals to change the price support programs of the Department of Agriculture's Commodity Credit Corporation (CCC) are based on detailed models and analysis of the supply and demand for the subsidized commodities.[6] CCC outlays are directly affected by the laws governing U.S. farm programs, the choices the Secretary of Agriculture makes in carrying out the programs, farmers' decisions to participate, and U.S. and world market conditions. Estimates of the cost of proposals to change support levels take into account the extent to which the Secretary will change the amount of required acreage reduction, farmers will change their plantings of supported crops, and market prices will rise or fall. Estimates of changes in other federal programs such as the Conservation Reserve Program, or proposed trade agreements such as NAFTA, include their estimated effect on farm prices and federal commodity spending. Consistent with the economic assumptions of the budget resolution, however, the estimates for even major changes in farm subsidies do not include the effects of those changes on total GDP or tax collections.

Social Security Earnings Test. Proposals to liberalize the Social Security earnings test provide the final illustration of traditional practices for estimating the effects of spending proposals. Increasing the amount of money that a Social Security beneficiary may earn without having his or her benefit reduced would increase benefits for some elderly people who are currently working and have their benefits partly or entirely withheld. The proposal could encourage additional paid work by some elderly people, although others might reduce their work effort. Such an increase in work would have a negligible effect on the amount of Social Security benefit payments. Because the cost estimate incorporates the economic assumptions in the budget resolution, the estimate would not reflect any change in economywide employment, compensation, or income and payroll tax collections. Even if those additional revenues were included in the cost estimate, however, they would offset less than 20 percent of the additional benefit payments, according to the Social Security Administration.

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6. Congressional Budget Office, *The Outlook for Farm Commodity Program Spending, Fiscal Years 1992-1997* (June 1992).