METHODOLOGY AND ISSUES IN THE REVENUE ESTIMATING PROCESS

Scheduled for a Hearing
Before the

SENATE COMMITTEE ON FINANCE
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Prepared by the Staff
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JOINT COMMITTEE ON TAXATION

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CONTENTS

INTRODUCTION

The Senate Committee on Finance has scheduled a public hearing on the revenue estimating process used to determine the effects of proposed tax legislation on fiscal year budget receipts (typically referred to as the revenue effects).

This pamphlet*, prepared by the staff of the Joint Committee on Taxation, discusses the revenue estimating process. Part I of the pamphlet is an overview and summary. Part II describes the revenue estimating methodology currently used by the Joint Committee staff, including key factors impacting the preparation of revenue estimates and behavioral effects taken into account in preparing revenue estimates. Part III discusses estimating methodology relating to certain tax legislative proposals. Part IV discusses issues relating to estimating the macroeconomic effects of proposed legislation. Part V provides a summary of testimony presented at the joint hearing of the House and Senate Budget Committees on estimating methodology held on January 10, 1995.

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* This pamphlet may be cited as follows: Joint Committee on Taxation, Methodology and Issues in the Revenue Estimating Process, (JCX-2-95), January 23, 1995.

I. BACKGROUND AND SUMMARY

A. Background

The Joint Committee on Taxation staff ("Joint Committee staff") plays an integral role in virtually every stage of the tax legislative process. One aspect of this role involves estimating the effects of proposed tax legislation on fiscal year budget receipts, typically referred to as the revenue effects. Although this portion of the Joint Committee staff's work utilizes significant amounts of staff resources and is highly visible, it by no means constitutes the sole work of the staff.[1]

In performing its estimating function, the Joint Committee is guided by three principles. First, the objective of the estimating process is consistently to produce accurate estimates that can be reasonably relied upon by Members of Congress in making legislative decisions. Second, the Joint Committee staff is dedicated to continuously improving its estimating methodology to enhance the accuracy of its work product. Third, the Joint Committee staff is highly sensitive to the need for the estimating process to be viewed as fair and impartial.

This pamphlet focuses on an issue that has attracted significant attention to the work of the Joint Committee staff in recent years -- the methodology employed by the staff when estimating the effects on Federal budget receipts of tax legislation considered by Congress.

B. Summary

1. Revenue estimating methodology

How revenue estimates are calculated

Revenue estimates measure the anticipated changes in Federal receipts that result from proposed legislative changes to Federal tax laws.

Each proposal is estimated using essentially the same methodology. First, one must determine the revenue projected to be collected under present law. Second, one must estimate the revenue yield that would result from the proposed law. The difference between the two is the revenue estimate.

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[1] For a summary of the history of the Joint Committee on Taxation, the work of the Joint Committee staff, and the role of the Joint Committee staff in the tax legislative process, see Written Testimony of the Staff of the Joint Committee on Taxation Regarding the Revenue Estimating Process for the Joint Hearing of the House and Senate Budget Committees of the 104th Congress on January 10, 1995 (JCX-1-95), January 9, 1995, Appendix I.

For most revenue estimates, the Joint Committee staff relies on large computerized models of the Federal tax system and the economy. Basically, these models contain two components: (1) a calculator, which computes taxes paid under present law and under the proposal, and (2) tax return or other data. The primary data source for most models is tax returns filed with the Internal Revenue Service (IRS).

Behavioral effects

One of the most significant elements of revenue estimates is the assumed effect of taxpayer behavior. Although Joint Committee staff microsimulation models account for certain taxpayer behavior, additional adjustments are often necessary. In general, a revenue estimate prepared for any proposal that changes the treatment of an item of expense or income, or the rate of tax on certain types of income or consumption, will incorporate behavioral effects. Thus, Joint Committee staff estimates are dynamic to the extent they take into account direct behavioral responses that can be expected from proposed changes in the law.

Examples illustrating the manner in which Joint Committee staff estimating methodology accounts for behavioral changes include the following: excise tax increases are assumed to result in lower sales of the taxed items; a reduction in the capital gains tax is assumed to increase realizations; and changes in individual income tax rates are assumed to affect portfolio management decisions.

Macroeconomic effects

Traditional estimating conventions utilized by the Joint Committee staff assume that tax law changes will have no overall effect on economic aggregates such as gross domestic product (GDP). However, it is assumed that employment and investment may shift among sectors or industries, depending on the nature of the tax proposal.

2. Estimating methodology relating to certain proposals

Examples of some recent revenue estimates prepared by the Joint Committee staff illustrate issues that arise in revenue estimating, particularly the extent to which taxpayer behavior is taken into account.

Capital gains

Of the revenue estimates prepared by the Joint Committee staff in recent years, none has attracted more attention than the estimates of proposals to reduce the rate of tax on capital gains. The Joint Committee staff estimates of capital gains tax cut proposals assume significant increases in realizations from the rate change, both on a short- and long-term basis. Consistent with current estimating methodology, the Joint Committee staff does not take into account the possible macroeconomic effects of capital gains tax cut proposals. Such effects, if any, would be expected

to come from increases in productivity resulting from changes in the capital stock. If such growth in productivity occurred, it would occur slowly at first, with most of the effects outside the five-year budget window.

Luxury tax

The luxury tax enacted in 1990 imposed a 10-percent excise tax on certain cars, boats, aircraft, furs, and jewelry. The Joint Committee staff revenue estimate assumed a significant change in consumption patterns stemming from the implementation of the excise tax, e.g., it assumed a significant decline in purchases of the tax items.

Proposals to increase the top individual income tax rate

As part of the Omnibus Reconciliation Act of 1993, two new individual income tax brackets of 36 percent and 39.6 percent were added, new alternative minimum tax rates were imposed, and the limitation on itemized deductions and the personal exemption phaseout were made permanent. The types of taxpayer behavior taken into account in estimating these changes included: the shifting from investments which yield interest and dividend income taxed at the new higher rates into investments that provide capital appreciation, which are taxed at unchanged lower rates; shifts from taxable to tax-exempt assets; use of different business form of organization; conversion of wage income into tax-deferred or tax-exempt employee benefits; and increased taxpayer noncompliance. While macroeconomic effects were not included in the estimates, it is not clear that they would have had a significant impact on the magnitude of the tax changes. In the case of changes in the top individual income tax rate, one would expect that the most probable macroeconomic effect would be a change in the labor supply of affected individuals.

3. Issues relating to estimating the macroeconomic effects of proposed legislation

As discussed above, the Joint Committee staff's current methodology does not predict the positive or negative effects, if any, a tax proposal might have on the overall economy. It has been suggested that, in making revenue estimates of a tax proposal, the Joint Committee staff should take into account the projected macroeconomic effects that would result from that particular tax proposal.

The Joint Committee staff has not included macroeconomic effects in its estimates for the following reasons:

- inclusion of macroeconomic effects in estimates of revenue proposals but not spending proposals could create an inconsistency in overall budget analysis;

- most revenue proposals are likely to have little or no macroeconomic consequences; and

- because of the complexity and lack of consensus as to the measurement of macroeconomic effects, attempting to take macroeconomic consequences into account could undermine the credibility of the estimating process and render estimates less reliable.

4. Summary of testimony before the joint hearing of the House and Senate Budget Committees

The House and Senate Budget Committees held a joint hearing on January 10, 1995, to examine the revenue estimating process. Kenneth J. Kies, Chief of Staff of the Joint Committee on Taxation, described the current revenue estimating methodology employed by the Joint Committee staff and discussed potential changes in the methodology. Robert D. Reischauer, Director of the Congressional Budget Office (CBO), presented the views of CBO. Witnesses at the joint hearing also included Henry J. Aaron (Director of the Economic Studies Program at the Brookings Institution); Michael J. Boskin (Professor of Economics and Hoover Institution Senior Fellow, Stanford University); Martin Feldstein (President of the National Bureau of Economic Research and Professor of Economics at Harvard); Alan Greenspan (Chairman, Board of Governors of the Federal Reserve System); Rudolph G. Penner (Managing Director of Barents Group LLC, KPMG Peat Marwick, and former Director of the Congressional Budget Office); Norman B. Ture (President, Institute for Research on the Economics of Taxation); and Paul A. Volcker (Former Chairman, Board of Governors of the Federal Reserve System). Excerpts of this testimony are contained in Section V.

II. REVENUE ESTIMATING METHODOLOGY

A. Overview of The Joint Committee Staff's Current Revenue Estimating Methodology

1. The basic calculation of all revenue estimates

Revenue estimates measure the anticipated changes in Federal receipts that result from proposed legislative changes to the Internal Revenue Code or related statutes. The following discussion outlines the major elements involved in the revenue estimating methodology currently employed by the Joint Committee staff.

Requests for revenue estimates range from those affecting broad groups of taxpayers (e.g., proposals to exclude all interest and dividends from gross income or to adopt a value-added tax) to those affecting a narrow class of taxpayers (e.g., a proposal applicable only to the banking industry). Each proposal is estimated using essentially the same methodology. First, one must determine the revenue projected to be collected under present law. Second, one must estimate the revenue yield that will result from the tax law after it is modified. The difference between these two amounts is the revenue estimate.

2. The revenue baseline and macroeconomic forecasts

The reference point for a revenue estimate prepared by the Joint Committee staff is the Congressional Budget Office ("CBO") five-year projection of Federal receipts, referred to as the revenue baseline.[2] The revenue baseline serves as the benchmark for measuring the effects of proposed tax law changes. The baseline assumes that present law remains unchanged during the five-year budget period. Thus, the revenue baseline is an estimate of the Federal revenues that will be collected over the next five years in the absence of statutory changes.

The revenue baseline is based upon CBO forecasts of macroeconomic variables such as the annual rate of growth of nominal gross domestic product ("GDP"), inflation rates, interest rates, and employment levels. For modeling purposes, a number of elements of the CBO forecast are disaggregated to match specific tax-related variables. For example, the aggregate forecast of wages and salaries paid is statistically matched to various types of taxpayers by income class.

In contrast, the reference point for revenue estimates prepared by the Treasury Office of Tax Analysis ("OTA") is an alternative set of economic forecasts generated by the Administration. Differences in resulting revenue estimates prepared by the Joint Committee staff and by the OTA

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[2] The revenue baseline is a component of the budget baseline prepared by CBO, which includes expenditures as well as receipts.

staff often can be traced to differences between the economic forecasts of CBO and the Administration.

As mandated by the Congressional Budget Act, revenue estimates published by the Joint Committee staff generally provide a fiscal year budget impact for the period ending five years following the current fiscal year (total of six fiscal years).[3]

B. Econometric and Statistical Simulation Tax Models

1. Models based on Statistics of Income data

For most revenue estimates of proposals to change the corpoate or individual income tax, the Joint Committee staff relies on large computerized models of the Federal income tax system and the economy. These models have been developed by economists on the Treasury OTA staff, the Joint Committee staff, and others. These models contain two components: (1) a calculator, which computes taxes paid under present law and under the proposal for which a revenue estimate is prepared and (2) tax return or other data. The primary data source for most models is the tax returns filed by individuals, corporations, and fiduciaries with the Internal Revenue Service ("IRS") and provided to the Joint Committee by the IRS Statistics of Income Division ("SOI"). The models combine the most recently available taxpayer information with forecasts of the aggregate level of national income provided by CBO.

The largest microsimulation model employed by the Joint Committee staff is the individual income tax model, which contains a random sample of approximately 200,000 individual income tax returns. This data is also matched with data from the Current Population Survey to account for individuals who do not file income tax returns. Once this match is complete, the file sample contains approximately 250,000 records. This sample is then statistically weighted to represent the entire filing and nonfiling population.

To estimate the revenue effects of most proposed changes in the individual income tax, the Joint Committee staff first uses the individual income tax model to calculate the tax liability for each of the sample returns in the model on the basis of present law. The model then recalculates the tax for each of the returns incorporating the parameters contained in the proposed legislation. In so doing, the model accounts for the interaction of all variable components of a taxpayer's return. For example, a 10-percent increase in the personal exemption does not necessarily increase the revenue loss associated with the personal exemption by 10 percent. Some returns will become nontaxable as a result of the increase, while other returns will shift to a different marginal rate bracket. The model will take these changes into account. After statistically weighting the

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[3] A Senate budget rule (the so-called "Byrd rule") provides that a point of order requiring a 60-vote majority can be raised with respect to any legislation that is not budget neutral (1) in the first year, (2) in years one through five, and (3) in years six through ten.

present-law and proposed-law tax payments to adjust the results to reflect outcomes for the more than 110 million U.S. individual income tax returns, the model calculates the difference in total revenues between present law and the proposal. This result is often only the first step in estimating the revenue effect of a proposal. For example, as discussed below, the Joint Committee staff often must make further adjustments to account for changes in taxpayer behavior, to reflect interaction among a package of proposals, or to reflect fiscal year budget reporting.[4]

In addition to the individual tax model, the Joint Committee staff and the OTA staff utilize a corporate tax model and a depreciation model that are based on SOI tax return data.

2. Other models

The Joint Committee staff has developed a variety of econometric models to estimate the revenue impact of changes in tax laws relating to business investment and depreciation, natural resources and energy, employee benefits, and other issues. The information needed to calculate the revenue effects of a proposal may not be available from tax return data or may be available only for a limited number of potentially affected taxpayers. In these instances, the Joint Committee staff must look beyond the SOI data files and construct a model that relies on alternative sources of data.

Frequently, data may be available from other government agencies, such as the Department of Commerce, the Department of Transportation, the Department of Labor, the Department of Health and Human Services, the Social Security Administration, and the Federal Reserve Board. For example, the Current Population Survey conducted by the Bureau of the Census of the Department of Commerce provides useful and otherwise unavailable data relating to pension plan participation by income class.

In the absence of Federal or State government data sources, Joint Committee staff must locate other reliable sources, such as that available from leading economists, CBO, the General Accounting Office ("GAO"), private consulting or research organizations, or affected taxpayers.

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[4] To be useful tools in budget analyses, estimates must be presented in a form consistent with the Federal government's cash-flow accounting system. Under this system, amounts received by the Treasury are accounted for at the time of receipt and disbursements are accounted for during the period when paid out.

To be consistent with the cash-flow measure of budget receipts, revenue estimates are shown in a format that corresponds to fiscal-year receipts of the Treasury Department. Because taxes are most often calculated on a calendar-year basis, the translation of changes in calendar-year tax liabilities into changes in the fiscal-year receipt of taxes is necessary.

C. Key Factors Affecting the Preparation of Revenue Estimates

After a microsimulation model produces a preliminary estimate of the revenue effect of a proposal, the Joint Committee staff often must make further adjustments to address issues that cannot be answered by directly applying the simulation models. These adjustments may be necessary to account for changes in taxpayer behavior (in addition to taxpayer behavioral effects calculated directly from the model), the interaction of various proposals, and issues relating to taxpayer compliance.

1. Anticipated behavioral responses

One of the most significant elements of Joint Committee staff revenue estimates is the assumed effect of taxpayer behavior. Although the microsimulation models used by the Joint Committee staff account for certain taxpayer behavior, additional adjustments are often necessary. In general, a revenue estimate prepared for any proposal that increases or reduces the deductibility or excludability of an item of expense or income, or that changes the rate of tax on certain types of income or consumption, will incorporate an analysis of potential behavioral responses. Thus, revenue estimates prepared by the Joint Committee staff are not static; Joint Committee staff estimates are dynamic to the extent they take account of the direct behavioral responses that can be expected from proposed changes in the tax laws.

In many cases, empirical research can offer guidance as to how taxpayers will respond to a proposed change in tax law. If adequate historical data exists (e.g., if a similar proposal was once included in the tax law), taxpayer response may be estimated statistically. For example, sufficient data is available to permit revenue estimates for proposals to change the excise tax on cigarettes to account for the expected change in demand for cigarettes.

Occasionally, reliable data will not be available to predict how taxpayers will respond to a proposed change. In such cases, the Joint Committee staff makes an informed judgment, relying on economic theory and other relevant sources, to assess possible behavioral responses.

The following examples demonstrate the ways in which the Joint Committee staff accounts for possible taxpayer behavior in preparing revenue estimates:

- When Congress limited the ability of taxpayers to deduct passive losses, the Joint Committee staff estimating methodology assumed that investment patterns would change and corporations would claim a portion of the losses no longer freely available to individuals. Thus, the Joint Committee staff estimated that the limitation on passive losses of individuals included in the Tax Reform Act of 1986 would raise $36 billion from individuals for the period 1987 to 1991, but would lose $12.6 billion from corporations during the same period.

- When the Tax Reform Act of 1986 made it less attractive for property and casualty insurance companies to invest in tax-exempt bonds, the Joint Committee staff assumed that these companies would shift partially from investments in tax-exempt bonds to higher yielding taxable investments, and that other corporations and individuals would acquire the tax-exempt bond holdings that insurance companies previously held. This phenomenon of investment shifting is an example of what are collectively referred to as "portfolio effects."

- Changes in excise taxes are expected to have an effect on sales of the taxed items. For example, the estimate of revenues to be gained from imposing the so-called "luxury tax" on boats, cars, airplanes, furs and jewelry assumed reductions in purchases of these items.

- Changes in the taxation of capital gains are assumed to affect how rapidly capital assets are sold. A proposed decrease in capital gains taxation will speed up the sale of capital assets, which moves some revenue into the budget window. Some of the speed up is assumed to be permanent; that is, it is assumed that some capital assets that might otherwise have been held until the death of the owner, thereby avoiding capital gains taxation entirely, are sold within the budget window as a result of a capital gains tax decrease. These changes result in increases in revenue, which offset much of the decrease from the tax cut.

- Other changes in the taxation of capital to provide specific incentives to acquire certain types of assets, such as targeted investment tax credits and accelerated depreciation, are also generally expected to affect investment decisions. These incentives are expected to speed up and, for some proposals, increase investment in the types of capital benefiting from the incentives. Investment in assets not entitled to the incentives is assumed to decline.

- Changes in individual income tax rates are assumed to affect portfolio management decisions of individuals. For example, an increase in the top individual income tax rate is assumed to result in increased holdings of tax-exempt bonds and reduced holdings of taxable investment instruments. To the extent that increasing the rate of tax on ordinary income reduces the taxation of capital gains relative to such ordinary income, it is assumed that individuals will shift portfolios so that they receive less current income as dividends and more as capital gains. Both of these assumptions reduce the estimated revenue gain from an increase in the top individual income tax rate.

- Changes in the deductibility of various expenses, such as home mortgage interest payments, business meals, or contributions to tax-deferred savings plans, are assumed to affect the rate at which such expenses occur. A decrease in the

deductibility of business meals, for example, is assumed to reduce the total amount spent on business meals.

- Finally, for changes in tax law that may be difficult to enforce or administer, some efforts by taxpayers to avoid taxation are assumed. One such example is the provision included in the Energy Policy Act of 1992 to include in income the value of employer-provided parking to the extent that it is greater than $155 per month. The Joint Committee staff estimate assumed that there would be a tendency for taxpayers to take steps to reduce or underestimate the value of employer-provided parking so as to avoid income inclusion under this provision.

2. Interaction

When one proposal would modify two or more provisions within the Internal Revenue Code, the result of the combination of changes often produces a greater or lesser revenue effect than the sum of the revenue effects of each proposal if enacted separately. If this interaction is ignored, the analysis is incomplete; if the interaction is assigned to any one element of a proposal, the revenue estimate for that proposal may be misleading.

The proper interpretation of the revenues attributed to specific proposals and the accompanying interaction are determined by the "stacking order" of the analysis. There are two principal methods of presenting these results in line-by-line revenue tables, and it is important to note that the numbers in each type of presentation may appropriately answer different questions but reflect the same estimated revenue effect.

The first of these methods provides a revenue estimate for each proposal in isolation against present law, assuming none of the other proposals is adopted. A separate line on the revenue table displays interactions among proposals. This procedure is usually the most efficient when only a few proposed changes are involved. Under this method, deleting a proposal from the package may have a greater or lesser revenue effect than the effect shown on the specific line for that proposal.

A second method requires that each proposal be estimated as if all other proposals have already been enacted, with a separate line again displaying interactions among proposals. The Joint Committee staff utilized this second method to analyze the Tax Reform Act of 1986. This method showed the revenue impact of adding or deleting specific proposals from the total tax reform package (rather than the revenue impact relative to present law of that single change without making any of the other changes contained in the package).

3. Compliance and enforcement

Implicit in all Joint Committee staff revenue estimates are assumptions concerning compliance and enforcement. The revenue yield of any provision is dependent on the extent of

compliance by taxpayers from both voluntary behavior and enforcement (including penalties assessed by the IRS). In general, levels of enforcement are assumed to remain unchanged as a result of most legislative proposals. However, many estimates do take into account changes in taxpayer compliance. This represents another aspect of taking into account behavioral effects.

Certain changes in tax law are specifically designed to improve compliance and also have the potential to affect enforcement. An example is the extension of information reporting to previously uncovered income sources. Information reporting generates compliance revenue by changing taxpayer perceptions of the risks of noncompliance and by assisting them in identifying the income they have received. In addition, the information reporting document could be of use to the IRS in the generation of enforcement revenues, either in the matching or audit process.

Revenue estimates of so-called "compliance" provisions do not always recognize both compliance and enforcement effects. The realization of compliance revenues in the example above requires only that the proposed change of law be expected to change taxpayer behavior. Thus, compliance revenues are included in the estimate. Downstream enforcement revenues, however, are dependent upon specific actions by the IRS, which may or may not occur depending on resource allocation decisions. Using the assumption of a constant baseline level of enforcement, such revenues would be "counted" only in the event of specific resource allocations, and not merely because of a change in law. Thus, in the above example, only the compliance revenue attributable to taxpayer behavior would be counted unless there were adequate resource allocations to justify counting the enforcement revenues.

D. Behavioral Effects and Macroeconomic Aggregates

1. Overview

The extent to which behavioral effects are taken into account in calculating the revenue effects of proposed tax legislation seems to cause the greatest confusion concerning the current estimating process. As discussed above, the Joint Committee staff does take many behavioral responses into account in preparing revenue estimates.

Revenue estimates often mistakenly are referred to as "static" because traditional estimating conventions utilized by the OTA staff and the Joint Committee staff assume no overall effect on economic aggregates such as gross domestic product; i.e., the forecast of total employment, investment, and other economic aggregates are assumed to remain unaffected by tax proposals. However, economists preparing revenue estimates assume that the components of these variables may change among sectors or industries, depending on the nature of the legislative proposal. For example, when the deduction for business meals was reduced, the revenue estimating methodology assumed some job displacement in the restaurant industry. However, it was assumed that this displacement was generally absorbed in other industries.

Ordinarily the growth of the following economic variables, as supplied by CBO, is assumed to be unchanged by proposed tax law changes for revenue-estimating purposes:

--Gross Domestic Product
--Aggregate investment
--Interest rates
--Overall price index
--Total level of State and local taxes

Although these aggregate levels are fixed in the CBO baseline, the composition of the variables underlying these aggregates may be assumed to vary as a result of a legislative proposal. Examples of elements of economic forecasts that may be reallocated include the following:

--Shifts between corporate and noncorporate income
--The mix of employee compensation between cash and nontaxable fringe benefits
--Relative prices of taxed versus non-taxed items

2. Behavioral effects not generally included in revenue estimates

The Joint Committee staff generally does not attempt to estimate the possible effects of a tax change on the growth of GDP. Use of a fixed revenue baseline means that, in developing revenue estimates, the Joint Committee staff does not take into account macroeconomic or "feedback" effects.

Thus, for example, with respect to tax changes that are likely to affect the return to capital, such as capital gains relief, investment tax credits, and accelerated depreciation, the fixed GDP forecast assumption means that the Joint Committee staff does not attempt to estimate growth in income resulting from the increased productivity, if any, caused by increases in investment. It also means the Joint Committee estimate does not account for any net increase in entrepreneurial activity generated by the incentives.

Similarly, the Joint Committee staff does not attempt to forecast changes in labor supply resulting from changes in income tax or payroll tax rates. At some income levels, the reduced disposable income resulting from an increase in tax rates could lead to an increase in labor supply by individuals seeking to maintain consumption levels. At other income levels, increases in tax rates may reduce labor supply as the marginal value of extra hours worked decreases. Hence, consideration of labor supply effects could increase or decrease the revenues to be anticipated from a tax increase, depending on whom the tax increase is affecting.

Some tax changes may affect the demand for labor. For example, excise tax increases that reduce demand for a product may result in layoffs in the affected industry. To the extent that the affected industry comprises a significant portion of a regional economy, such as tobacco in North Carolina, Virginia and Kentucky or "luxury" boats in New England, the reduced demand for labor could result in a local economic downturn. The resulting increased unemployment could generate additional Federal expense in the form of increased payments of unemployment compensation,

food stamps, and other transfer payments. Joint Committee staff estimates do not reflect these effects.

Similarly, some tax incentives, such as empowerment zones and targeted jobs tax credits, target specific segments of the population likely to be receiving transfer payments from the Federal government. The budgetary effects of the revenue loss from these proposals may be offset by a reduction in Federal transfer payments, as well as by increased income and payroll taxes on any additional earned income. The Joint Committee staff does not attempt to account for these outlay effects in estimating such proposals.

The Joint Committee would not, in any case, attempt to measure such increases or decreases in transfer payments because they affect outlays for which CBO provides estimates.

III. ESTIMATING METHODOLOGY RELATING TO CERTAIN PROPOSALS

A. Overview

In an effort to further understanding of the issues involved in revenue estimating, the estimating methodology and issues relating to the following proposals are discussed below:

(1) Proposals to reduce the rate of tax on capital gains;
(2) The 10-percent luxury excise tax on boats, airplanes, jewelry, and fur enacted in 1990 and repealed in 1993; and
(3) Proposals to increase the top rate of tax on individuals.

The Joint Committee staff has provided revenue estimates for these proposals in recent years. They were chosen for discussion purposes in part because they have received considerable attention. They also illustrate some of the more complex issues that arise in the revenue estimating process.

B. Discussion of Specific Revenue Estimates

1. Proposals to reduce the rate of tax on capital gains

Of the revenue estimates prepared by the Joint Committee staff in recent years, none has attracted more attention than the estimates of proposals to reduce the rate of tax on capital gains. During the 1990 Budget Summit, significant attention was devoted to the differences in estimates of capital gains proposals prepared by the Joint Committee staff and the Treasury OTA staff.

A general overview of the methodology the Joint Committee staff utilizes to estimate capital gains proposals is presented below. In particular, there is a discussion of the two most significant issues to be considered when estimating capital gains proposals: (1) the extent to which enactment of a reduction in the rate of tax on capital gains will induce taxpayers to realize capital gains (the "unlocking effect"); and (2) the fact that current estimating methodologies do not account for possible macroeconomic effects of a proposed capital gains tax rate reduction.

The first step in estimating the revenue effects of a proposal to reduce the rate of tax on capital gains is to calculate the decrease in tax liability that would result from lowering the tax rate for baseline gains (i.e., those capital gains that would be realized even in the absence of a change in rates), measured without taking taxpayer behavior into account. This amount is calculated directly from the individual income tax model described above. In doing this calculation, the Joint Committee staff relies upon the forecast of capital gains realizations incorporated in the CBO baseline.

The second step takes into account induced realizations expected from the proposed rate change. Induced realizations represent the additional gains taxpayers are expected to realize as a result of a proposed lower tax rate on capital gains. These "induced realizations" are calculated by combining two factors: (a) the Joint Committee staff estimate of taxpayers' behavioral response to the proposed rate reduction (i.e., the assumed elasticity); and (b) the gain realizations reflected in the CBO revenue baseline. For many capital gains proposals, in the first few years after a capital gains tax rate reduction takes effect, the Joint Committee staff estimates that induced realizations will be more than sufficient to offset the revenue loss resulting from the lower rates, so that net Federal tax revenues are increased. However, the Joint Committee staff's estimates assume that this initial surge in realizations is temporary. Thus, the Joint Committee staff estimates that, after an adjustment period, in most cases taxpayers will settle into a more permanent level of realizations that will be lower than the initial surge, but higher than would be expected in the absence of a rate reduction.[5]

The Joint Committee staff has long recognized that a change in the rate of tax on capital gains will affect the level of capital gains realizations by taxpayers.[6] Economists use the term "elasticity" to describe the relative change in taxpayers' decisions to realize capital gains that can be expected in response to changes in the capital gains tax rate. Mathematically, the realization elasticity is the percentage change in realizations divided by the percentage change in tax rates.[7]

The Joint Committee staff estimate of the elasticity of taxpayer response to a reduced capital gains tax rate was developed after careful review of the major empirical and theoretical studies by experts in government and the academic community. The elasticities ultimately used, however, are not those reported in any single study; nor are they derived by a mechanical

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[5] The current methodology of the Joint Committee staff in preparing distributional analysis of tax proposals, including capital gains tax rate cut proposals, includes increased tax revenue from the proposed changes for each of the five years of the budget period. This would include the tax from induced realizations in the case of a capital gains rate reduction.

[6] For example, in the General Explanation of the Revenue Act of 1978 (P.L. 95-600), the revenue table included a separate line item reflecting the increased revenues from induced capital gains realizations.

[7] For example, if a 10-percent reduction in the capital gains tax rate were expected to result in a 10-percent increase in realizations, the realization elasticity would be -1 (10 percent/-10 percent). An elasticity of -1.0 would mean that if the capital gains tax rate were lowered, the percentage increase in realizations would exactly offset the revenue loss from the reduction in the rate, resulting in no net revenue effect. An elasticity of -1.1 would mean that, if the capital gains tax rate were lowered, the increase in realizations would produce more revenues than the revenue loss occurring as a result of the lower tax rate. Similarly, an elasticity of -0.9 would mean that the increase in realizations from a reduction in the capital gains tax rate would be less than the loss of revenues from the lower rate.

averaging of any group of studies. Rather, they reflect the staff's independent evaluation of the results of the various studies, analyzed in the context of the historical record.

An important component of the Joint Committee staff realization elasticity is the "portfolio effect," which accounts for the ability of taxpayers to convert ordinary income to capital gain.[8] There are at least four ways in which this conversion can occur:

- Investors may select one type of asset rather than another, based on the type of income it is expected to produce. For example, investors may redirect their investment portfolios to replace assets that produce interest and dividends with assets that generate capital gains. As a consequence, dividend and interest income may decline just as capital gains income is increasing.

- Corporations may decide to pay out a lesser portion of their available earnings as dividends in the belief that greater retained earnings will translate into higher stock prices, generating more capital gain and less ordinary income for their shareholders.

- Employees may choose to replace salary income with capital gain income, for example, by choosing to receive stock or certain stock options as compensation in lieu of cash wages.

- Taxpayers may attempt to structure transactions - without affecting their economic substance - so as to realize their profits in a form which the tax law categorizes as capital gain rather than ordinary income.

Consistent with current estimating methodology, the Joint Committee staff does not take into account the possible effects of a capital gains tax cut on GDP (i.e., the macroeconomic or so-called "feedback" effects) in preparing revenue estimates of capital gains tax cut proposals. Such feedback effects on GDP, if any, would be expected to come from increases in productivity resulting from changes in the capital stock. Any such productivity growth would occur slowly at first, with most of the effects outside the budget window. In theory, increased entrepreneurial activity utilizing otherwise unemployed labor could generate short-run increases in GDP.

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[8] Former and present members of the Joint Committee staff published an analysis of this point. Eric W. Cook and John F. O'Hare, "Issues Relating to the Taxation of Capital Gains," National Tax Journal, vol. 60, September 1987.

2. Estimates of the luxury excise tax

The luxury excise tax enacted as part of the Omnibus Budget Reconciliation Act of 1990 imposed a 10-percent excise tax on the value of automobiles in excess of $30,000, the value of boats in excess of $100,000, the value of personal-use aircraft[9] in excess of $250,000, and the value of furs and jewelry in excess of $10,000. The tax was effective for sales occurring on or after January 1, 1991. As part of the Omnibus Budget Reconciliation Act of 1993, the tax on boats, personal-use aircraft, furs, and jewelry was repealed. The repeal was effective for purchases of boats, jewelry, furs, and personal-use aircraft occurring on or after January 1, 1993. The 10-percent tax on automobiles was indexed periodically for inflation such that, in 1994, the tax applied only to the value of automobiles in excess of $32,000.

The methodology used to estimate excise tax proposals generally involves several steps. Once the initial tax base is determined, the base is adjusted to account for changes in consumption patterns (elasticities of demand and supply) that result from the imposition of the tax. The base is also adjusted to account for any significant compliance problems in the administration of the proposed tax. The tax rate is then applied to the adjusted tax base to yield the expected gross revenues from the tax.

One of the most fundamental components of any revenue estimate is the construction of the tax base. Estimation of the luxury excise tax proposal required information on units of each item sold at a given price. Because no single data source contained all the information necessary for the estimates, several data sets were used to derive the revenue estimates of the tax.

At the time of the legislative consideration of the luxury tax in 1990, little information was available from academic literature or from the affected industries on the elasticity of demand for cars, boats, jewelry and furs, and personal-use aircraft with values in excess of the proposed excise tax thresholds. Based on the available information, the Joint Committee assumed that demand for these items was highly elastic. Thus, the Joint Committee staff revenue estimate assumed a significant change in consumption patterns stemming from the implementation of the tax, i.e., it assumed a significant decline in purchases of the taxed items. Furthermore, the Joint Committee staff estimate assumed that some purchases of luxury goods which were otherwise planned to occur after the implementation of the tax were accelerated to avoid the tax. The Joint Committee estimate also assumed an initial period of lower than usual tax collections based upon an anticipated low level of compliance with the tax.

A comparison of estimates shown in the table below demonstrates that the luxury excise tax in fact produced more revenue than was expected in its first two years. This was due to the unexpectedly large receipts from the tax on automobiles. In addition, the tax on boats and jewelry

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[9] Aircraft for which 80 percent of use was for nonpersonal activities were excluded from the tax.

produced more than the anticipated revenues in the first two years of the tax. The tax on furs generated the expected revenues for the 1991-1992 tax period, while the tax on personal-use aircraft generated less revenue than was anticipated. The table below compares the original Joint Committee gross revenue estimates from 1990 for the luxury excise tax with the actual tax receipts collected by the IRS.

IRS LUXURY EXCISE TAX RECEIPTS COMPARED TO JCT ESTIMATES[10]
Fiscal Years
[Millions of Dollars]

Items	1991(a)	1992
Airplanes over $250,000:		
IRS Actual Receipts	0.1	0.4
JCT Estimate	1.0	4.0
Shortfall	-0.9	-3.6
Boats over $100,000:		
IRS Actual Receipts	7.3	12.4
JCT Estimate	4.0	9.0
Excess	3.3	3.4
Automobiles over $30,000:		
IRS Actual Receipts	151.5	296.5
JCT Estimate	27.0	69.0
Excess	124.5	227.5
Furs over $10,000:		
IRS Actual Receipts	0.3	0.7
JCT Estimate	(*)	1.0
Shortfall	0.0	-0.3
Jewelry over $10,000:		
IRS Actual Receipts	9.2	15.8
JCT Estimate	1.0	3.0
Excess	8.2	12.8
Total:		
IRS Actual Receipts	168.4	325.8
JCT Estimate	33.0	87.0
Total Excess	**135.4**	**238.8**

(a) Year contains only 9 months of receipts.
(*) Gain of less than $1 million.

[10] The Joint Committee staff estimates provided in this table are the original estimates used in the Omnibus Budget Reconciliation Act of 1990 presented on a gross basis. IRS tax collection data represents gross fiscal-year excise tax collections. The net revenue estimates usually produced by the Joint Committee staff must be shown on a gross basis to produce any meaningful comparison.

Since the enactment of the luxury excise tax, there has been much debate about its effect on the boating industry. Data from the National Marine Manufacturers Association shows that the boating industry was in a recession two years prior to the enactment of the luxury tax. Beginning in 1989, the boating industry began to experience a significant decline in sales for both luxury and nonluxury boats. Between 1988 and 1990, sales of luxury and nonluxury boats declined by about one-third.[11] This decline continued through 1993. It has been asserted that several factors contributed to the decline in sales, including the lack of consumer confidence due to the oncoming recession, the luxury tax, State sales taxes, and a large used boat market from which lower priced substitutes were available. In 1993, anticipated repeal of the luxury excise tax caused a delay in the planned purchases of boats until 1994. The imposition of a luxury excise tax on boats would be expected to result in a reduction of luxury boat sales. The Joint Committee estimate of the luxury excise tax on boats took account of such a reduction in sales on top of an already declining industry.

3. Proposals to increase the top individual income tax rate

As part of the Omnibus Reconciliation Act of 1993, two new individual income tax brackets of 36 percent and 39.6 percent were added. In addition, new alternative minimum tax rates were imposed and the limitation of itemized deductions and the personal exemption phaseout were made permanent.

The estimation of these changes began with the use of the individual income tax microsimulation model, described previously, to calculate the change in tax liability resulting from the proposed changes. The model provides the forecast distribution of income which is essential to the calculation and accounts for interactions between the provisions.

The model output was then adjusted after considering certain behavioral responses on the part of affected individuals. This adjustment was particularly critical in this case because the provisions affected high-income individuals who are generally assumed to have greater access to information and greater ability to rearrange their affairs to minimize the impact of the tax.

The types of taxpayer behavior taken into account include the shifting from investments which yield interest and dividend income, taxed at the new higher rates, into investments that provide capital appreciation, which is taxed at unchanged lower rates. Also considered were shifts from taxable to tax-exempt assets, conversion to C corporation business form, conversion of wage income into tax-deferred compensation or tax-exempt fringe benefits, and increased noncompliance and avoidance.

In making the determination of how much behavioral response to include, the Joint Committee staff reviewed available studies and consulted with the OTA staff. The final result was a reduction in the estimate of increased fiscal year receipts of $8.5 billion or a reduction of approximately 7 percent of the change in receipts projected by the microsimulation model, for the five-year period.

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[11] GAO Report - Tax Policy and Administration: Luxury excise tax issues and estimated effects, February 1992; GAO/GGD-92-9.

Because all revenue estimates assume fixed levels of macroeconomic aggregates, the behavioral responses considered did not include actions which would affect the overall output of the economy such as a change in the supply of labor. While macroeconomic effects were not included in the estimate, it is not clear that they would have had a significant impact on the magnitude of the tax change. In the case of changes in the top individual income tax rate, one would expect that the most probable macroeconomic effect would be a change in the labor supply of affected individuals.

IV. ISSUES RELATING TO ESTIMATING THE MACROECONOMIC EFFECTS OF PROPOSED LEGISLATION

A. In General

As indicated above, under current revenue estimating methodology, a revenue estimate predicts how Federal receipts will increase or decrease relative to the baseline projections if a proposed change in the tax law is enacted. However, although a revenue estimate under current estimating methodology may incorporate anticipated behavioral responses to a proposed change in the tax law, the estimate does not take into account the potential effect the proposal may have on aggregate economic growth, interest rates, or other macroeconomic variables. Thus, revenue estimates prepared under the current methodology do not predict the positive or negative effects, if any, a proposal might have on the overall economy.

It has been suggested that in making revenue estimates of a tax proposal, the Joint Committee staff should take into account the projected macroeconomic effects that would result from that particular tax proposal.

B. Issues to be Considered Concerning the Possibility of Incorporating Macroeconomic Effects in Revenue Estimates

There are a number of important issues which need to be analyzed in considering whether to modify the current estimating methodology applicable to proposed tax policy changes to take into account possible macroeconomic effects.[12] The following are key issues that should be considered.

1. Consistency between revenue estimates and spending estimates

Inclusion of macroeconomic effects in estimates of revenue proposals but not spending or regulatory proposals could create an inconsistency in overall budget analysis. Many proposed changes in spending and regulatory policy could have a structural effect on the economy, changing the long-run potential for growth of GDP. It is possible, for example, that a proposed reduction in the taxation of income from capital investments might be balanced by a proposed reduction in certain Federal infrastructure expenditures. Many economists believe that a cut in spending on infrastructure will result in a reduced rate of growth in GDP. To the extent that a change in taxes is offset by a change in spending, a budget forecast that incorporates the long-run growth effects of the tax cut, but not those of a corresponding cut in spending, will produce a biased picture of the effects of the proposal on the Federal budget deficit.

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[12] These issues are discussed in more detail in the Congressional Budget Office (CBO) Publication Budget Estimates: Current Practices and Alternative Approaches (January 1995), prepared by CBO as background for a joint hearing on budget estimation procedures held by the House and Senate Committees on the Budget on January 10, 1995.

In the short run, a tax cut could stimulate the economy by providing consumers with more disposable income, which would result in more demand for products, and thus more production. However, in near full-employment economies, such as the current one, this effect will be reduced by rising interest rates caused by the increase in the Federal deficit. To the extent that a tax cut is balanced by a spending cut, economists would expect to see a reduction in demand caused by the reduced purchases of goods and services by the Federal government. If the Joint Committee staff were to attempt to incorporate such cyclical demand analysis in revenue estimates, it would present a biased picture of the effects of budget legislation on the Federal deficit unless CBO also incorporates cyclical demand effects in its analysis of expenditure changes.

2. Small macroeconomic impacts of most proposals

Most revenue proposals are likely to have little or no macroeconomic consequences. The vast majority of revenue proposals analyzed by the Joint Committee staff may be expected to affect small sub-sectors of the economy. They will result in shifting of resources from one industry to another, but will not signficantly affect total national income. For example, a reduction in the allowable deduction for meals and entertainment would reduce restaurant sales. But the money that would have been spent in restaurants will either be spent elsewhere, or will add to the stock of savings, thus increasing taxable income in other segments of the economy. The net effect of the provision on macroeconomic aggregates would be negligible for revenue estimating purposes.

Some proposals, such as cuts in capital gains taxes and accelerated depreciation schedules, that increase the after-tax returns to capital, may be expected to affect the long-run growth rate of GDP. But it is likely that the effects of this capital build-up will develop gradually, with most of the budgetary consequences occuring outside the five-year budget window. Even a ten-year forecasting horizon may not be long enough for the full effects of increased productivity resulting from increased capital accumulation to be fully manifested. The only net growth effects that are likely to occur within the budget horizon are those resulting from increased entrepreneurship. Such activity has been a very small factor in previous market responses to changes in the taxation of income from capital.

3. Lack of consensus among economists about forecasting macroeconomic effects

There is little consensus among economists about the exact nature or magnitude of likely macroeconomic responses to many types of fiscal policy changes. Because of the complexity and lack of consensus as to the measurement of such macroeconomic effects, attempting to take macroeconomic consequences into account could undermine the credibility of the estimating process and render estimates less reliable.

The uncertainty of monetary policy further contributes to this problem. Demand-generated fluctuations in GDP will only materialize if the Federal Reserve Board does not attempt to counteract them with its own changes in policy. Therefore, successfully predicting these cyclical demand effects would also require accurate prediction of corresponding Federal Reserve monetary policy actions and their effects on the economy. To the extent that the Federal Reserve does work to counteract the effects of fiscal policy on aggregate demand, tax cuts will have very little demand-driven macroeconomic effect.

In addition, although magnitude and direction of the economy's response to actions by the Federal Reserve is generally more predictable than the economy's response to fiscal policy, the timing of the response to monetary policy is very difficult to predict. Timing is as important in revenue estimating as magnitude, given the pay-as-you-go requirements of the budget act. The uncertainty inherent in predicting the timing of monetary policy effects on the economy further compromises the reliability of revenue estimates that incorporate cyclical demand effects.

According to some economists, a decrease in taxes on income from capital will result in a significant increase in income due to increased productivity and, possibly, increased entrepreneurial activity. Because this type of growth is not likely to be inflationary, the Federal Reserve is not likely to try to counteract it. However, the speed with which decreases in taxes on income from capital lead to increases in investment is dependent on whether the Federal Reserve accomodates the increased money demand. Without accomodating monetary policy, the pace of increases in investment could be slowed, with rising interest rates creating a higher Federal debt burden. Thus, the ability to predict the actions of the Federal Reserve is important in accurately forecasting the effects of structural or supply side tax incentives.

The short-term effects of this increased investment on interest rates is further complicated by the fact that the U.S. is an open economy. To the extent that a decrease in taxes on income from capital induces an inflow of foreign financial capital, it will be necessary to predict the behavior of foreign governments in response to the corresponding outflow of financial capital from their economies. Any efforts by foreign governments to restrict these outflows could further increase U.S. interest rates.

4. Possible unintended increase in the deficit

Given the fact that most of the discussion associated with proposals to take macroeconomic effects into account has focused on proposals which are viewed, at least by some, as having the potential for positive macroeconomic effects, taking such effects into account could reduce the pressure to further reduce the deficit. Moreover, to the extent that an estimate overstates the positive macroeconomic effects of a proposed change, the result could be an increase in the deficit.

For at least the past 14 years, the CBO forecast of the deficit, and the Joint Committee forecasts of effects of tax cuts on the deficit, have been criticized by some as being too pessimistic. Yet, these forecasts have been consistently found to be too optimistic[13]. The Federal deficit increased substantially during this time. There is concern that incorporating anticipated

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[13] In President Reagan's first budget message to Congress, it was asserted that "despite substantial rate reductions assumed in the Administration economic scenario, [it is anticipated that] Federal receipts would grow by nearly 10 percent annually...the expected $342 billion rise in Federal receipts over the 1981-1986 period is more than adequate to fund planned outlay levels..." (Americal's New Beginning: A Program for Economice Recovery, the White House, February 18, 1981, p. III-6. In fact, despite the tax increases embodied in the 1982 and 1984 tax Acts, total receipts rose by only $170 billion over the forecast period. This contributed to a total revenue shortfall of $539 billion.

growth effects would aggravate this tendency toward optimistic evaluation of fiscal policies, resulting in an additional risk of underestimating Federal deficits at a time when growing Federal debt is viewed by many as a potential long term threat to the economy.

Federal Reserve Chairman Alan Greenspan emphasized this concern in his recent testimony before a joint hearing of the House and Senate Budget Committees: "The record is very clear about one thing. This country has had no chronic problem of running smaller budget deficits (or larger surpluses) than economically desirable...It would...be a sad irony to have such long-term constructive change [as would result from a shift to consumption taxation] thwarted in practice by continuing large deficits fostered in part by unrealistic revenue estimates - estimates propelled more by perceived political needs than economic realities."[14]

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[14] "Testimony by Alan Greenspan before a Joint Hearing of the Senate and House Committees on the Budget, January 10, 1995," pp. 9-10.

V. SUMMARY OF TESTIMONY PRESENTED TO THE JOINT HEARING OF THE HOUSE AND SENATE BUDGET COMMITTEES ON REVENUE ESTIMATING METHODOLOGY

The House and Senate Budget Committees held a joint hearing on January 10, 1995, to examine the revenue estimating process. Kenneth J. Kies, Chief of Staff of the Joint Committee on Taxation, described the current revenue estimating methodology employed by the Joint Committee staff and discussed potential changes in the methodology. Robert D. Reischauer, Director of the Congressional Budget Office (CBO), described the budget scoring process and presented the views of CBO with respect to the incorporation of behavioral effects, including their impact on macroeconomic aggregates in that process.[15]

Witnesses at the joint hearing also included Henry J. Aaron (Director of the Economic Studies Program at the Brookings Institution); Michael J. Boskin (Professor of Economics and Hoover Institution Senior Fellow, Stanford University); Martin Feldstein (President of the National Bureau of Economic Research and Professor of Economics at Harvard); Alan Greenspan (Chairman, Board of Governors of the Federal Reserve System); Rudolph G. Penner (Managing Director of Barents Group LLC, KPMG Peat Marwick, and former Director of the Congressional Budget Office); Norman B. Ture (President, Institute for Research on the Economics of Taxation); and Paul A. Volcker (Former Chairman, Board of Governors of the Federal Reserve System).

In general, these witnesses agreed that omitting the effects of tax law changes on macroeconomic aggregates such as labor supply, saving, and investment from revenue estimates may, in theory, reduce the accuracy of these estimates. Some argued that the current methodology provides biased estimates of the revenue effects of major tax proposals as a result of the omission of macroeconomic effects. However, others argued that there is no consensus on the magnitude or direction of macroeconomic effects. Some were of the opinion that the macroeconomic effects of most (if not all) tax proposals would be minimal over the five-year budget window.

There was general agreement on the principle that the inclusion of macroeconomic effects in revenue estimation methodology should be accompanied by the inclusion of such effects in estimation of the budget effects of Federal spending programs.

With the notable exception of Dr. Feldstein, the witnesses were in general agreement that there does not currently exist a well-defined methodology for incorporating macroeconomic effects into revenue estimation. Most of the witnesses urged caution in making revisions to the current estimation methodology.

The following excerpts from the written testimony of these witnesses provide a sample of their views and concerns with regard to modifications to current revenue estimating methdology.

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[15] See Congressional Budget Office, Budget Estimates: Current Practices and Alternative Approaches, January 1995.

Henry Aaron

- "No academic consensus exists on the magnitude and often on the direction of supply-side effects of most tax changes now under consideration. And no consensus is likely to exist soon."

- "Based on all reputable estimates of the responsiveness of saving and labor supply to tax-induced changes in the rate of return, the supply-side effects of all major tax changes now under consideration could not offset (or add) more than trivially to the direct revenue effects. In short, there is not much worth fighting over."

- "Current practice is surely not quite right in ignoring aggregate demand effects, and everyone knows that it is not quite right. But I know of no responsible economist who would abandon it, because to do so would replace a faulty discipline with no discipline at all."

- "Every argument that can be put forward on behalf of including supply-side effects of tax policy in revenue estimates applies with equal or greater force to expenditure programs."

Michael Boskin

- "Static analysis of the effects of a tax proposal produces a bias in the presentation of policy choices. Tax proposals that improve economic performance are scored as losing more revenue, and sometimes far more revenue, than would be the case if dynamic estimates were used."

- "The JTC provides estimates for hundreds of tax proposals each year. Given current resources and economic knowledge, it would be impractical to develop a dynamic estimate for each of these proposals."

- "Dynamic revenue estimation should be reserved for major initiatives likely to have non-negligible effects on the economy, e.g., capital gains tax rate reduction...."

- "The dynamic estimates would require an acceptable model of the economy and/or sensible estimates of the aggregate supply responses..., what economists call elasticities. It is fair to say that there is no consensus on such a model or estimates. But that is not an excuse for doing nothing."

Martin Feldstein

- "I think the official revenue estimating method should be revised to reflect the likely effects of changes in tax rules on work and on saving."

- "[R]evenue estimators don't take into account the most important kind of economic behavior--the changes in work and saving. As a result, official projections overstate the revenue gain that would result from increasing tax rates and overstate the revenue loss that would result from lowering rates."

- "[I]t is...important to make the reforms that I am suggesting.... [T]here is nothing especially difficult about putting these reforms into practice."

Alan Greenspan

- "One central issue with respect to a more dynamic scoring is whether cyclical, aggregate demand effects of fiscal changes should be taken into account--or only permanent effects on aggregate supply. ...I would suggest that including aggregate demand effects would be confusing.... I would recommend limiting the analysis to appropriate supply-side effects."

- "[F]ully dynamic estimates of individual budget initiatives should be our goal. Unfortunately, the analytical tools required to achieve it are deficient. In fact, the goal ultimately may be unreachable. ...We should not assume that models can capture the long-run dynamic effects of specific tax and outlay changes any better than they can forecast the economy."

- "We must avoid resting key legislative decisions on controversial estimates of revenues and outlays. Should financial markets lose confidence in the integrity of our budget scoring procedures, the rise in inflation premiums and interest rates could more than offset any statistical difference between so-called static and more dynamic scoring."

Rudolph Penner

- "A significant portion of errors are made because the data with which we work is of very low quality, does not exactly fit the concepts that we require, or is outdated because it is made available with a very long time lag."

- "Even where there is more time, estimates of behavioral responses may be impractical because of...lack of data or the fact that a particular program change has never been considered in previous research."

- "[T]here is much more controversy among experts regarding the size and sometimes even the direction of the impact of policy changes on economic activity and growth than there is on micro policy issues such as the effect on the demand for gasoline from changing the gasoline tax."

- "[T]he arbitrary limit on the budget horizon is the cause of far more bad decisions than the failure to take aggregate demand and supply impacts into account."

- "The JTC and CBO should...be much more careful to explain in detail the assumptions underlying cost and revenue estimates, so that the Congress understands what is and what is not included and what biases result."

Norman Ture

- "[T]he existing methodology should be replaced by one that employs a dynamic general equilibrium model."

- "[T]he consistent application of a dynamic or general equilibrium methodology must complicate the budget-making process. Virtually every change in spending programs or in tax provisions that is made in the process of moving original budget recommendations toward budget resolution will require re-estimation of the effects on at least the major economic magnitudes, hence the feedback effects on revenues and outlays."

- The first caution...is to proceed carefully and deliberately in the development of a better estimating methodology. ...[T]here is not now available any estimating system that could be quickly adapted to the estimating needs of federal policy makers. ...[T]he Committees should not insist on undue haste that might result in adopting an unsatisfactory system that would discredit the very notion of a general equilibrium approach for estimating the budget results of public policy changes."

Paul Volcker

- "What is really at issue in the seemingly arcane matter of revenue estimating is whether...discipline will be maintained, or whether budget projections will become an act of wishful thinking...."

- "Tax changes are not unique in affecting long range productivity. An analogous case can, and certainly will, be made for certain expenditures (education, infrastructure, health and safety, on and on) spurring long-term growth, and therefore tax revenues. There simply is no possibility of reaching a strong consensus on quantifying these long-term effects...."

- "To the extent that...new estimating techniques damage both the expectations and the reality of working toward a balanced budget...the result will be higher interest rates than otherwise, reduced prospects for saving and investment, and poorer prospects for efficiency and productivity over time, not better."