A NARRATIVE ANALYSIS OF POSTWAR TAX CHANGES

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ABSTRACT

This paper provides a narrative analysis of federal tax legislation in the United States over the period 1945-2007. It uses contemporary primary sources to identify every significant piece of federal tax legislation over this period. It then uses those sources to determine the primary motivation for each action, and the size and timing of its revenue effects. The paper demonstrates that the motivation for almost every significant tax bill falls into one of four categories: responding to a current or planned change in government spending, offsetting other influences on economic activity, reducing an inherited budget deficit, and attempting to increase long-run growth. It also finds that in the small number of cases where more than one motivation is important, it is possible to construct reasonable estimates of the portions of the expected revenue effects due to each motivation. Finally, the paper classifies each tax change on several dimensions, such as whether it was intended to be temporary or permanent, whether it focused on changing marginal tax rates, and whether it significantly changed investment incentives. The results of the analysis can be used as an input into studies of the aggregate effects of changes in taxes.

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Economists are interested in the effects of changes in the level of taxation on consumption, short-run fluctuations, long-run growth, government spending, and other aggregate outcomes. Unfortunately, existing measures of changes in taxes are quite crude. The two most common measures are the change in overall revenues and the change in cyclically adjusted revenues. For example, Bohn (1991) uses the change in overall revenues in a study of the budgetary effects of tax changes; Blanchard and Perotti (2002) use the change in overall revenues net of transfers, adjusted for the effects of changes in income, to investigate the short-run macroeconomic effects of changes in taxes; and Kormendi (1983) uses the change in overall revenues to study the impact of tax changes on consumption.

These measures are likely to be correlated with other influences on aggregate outcomes. Many changes in revenues are not the result of policy decisions, but are endogenous responses to non-policy developments. Most obviously, because taxes are a function of income, changes in income directly affect revenues. Cyclical adjustment is intended to address this issue. But, as Auerbach (2000) stresses, this is far from enough to eliminate the effects of non-policy factors: changes in stock prices, inflation, the distribution of income, and a host of other forces affect revenues. Since many of these forces are likely to affect aggregate outcomes, or likely to be correlated with other influences on aggregate outcomes, this greatly complicates efforts to determine the effects of changes in taxation.

Moreover, legislated tax changes have numerous motivations. Some reflect efforts to stimulate a weak economy or to restrain an overheated one; others result from views about the incentive effects of marginal tax rates; others occur in conjunction with decisions to adopt new spending programs; and so on. As with non-policy changes, changes in taxes resulting from policy actions due to different motivations may be correlated with other determinants of aggregate outcomes. For example, including tax changes taken because the economy is faltering in estimating the effects of tax changes on short-run fluctuations would be likely to yield underestimates of the true effects. Similarly, to test whether tax cuts cause a

reduction in government spending, it would be inappropriate to include tax cuts made because spending was declining for other reasons.

To help address these problems, this paper provides a narrative analysis of postwar legislated tax changes in the United States. It uses contemporaneous government documents to identify all significant pieces of federal tax legislation, and to determine the main motivation for each tax action, the timing and size of their effects on revenues, and the nature of the tax changes. The information provided by this analysis is a potentially crucial input to the estimation of the macroeconomic effects of fiscal policy. Knowing the motivation for tax changes allows one to separate observations into those that are legitimate for answering the question at hand, and those that are likely to yield biased estimates.

Knowing other characteristics of the tax changes should also improve our estimates of the effects of fiscal policy. Most obviously, the timing and size of the revenue effects provide a way of dating and scaling tax changes. Tax changes also vary in whether they are legislated to be permanent or temporary, and whether they change marginal tax rates, average rates, incentives for investment, and other features of the tax code. Information about these other characteristics allows one to test whether the effects of tax changes depend on these features.

The principal purpose of our analysis is to provide an input into studies of the effects of tax changes on various aggregate variables. For example, Romer and Romer (2009a) use the results to analyze the short-run and medium-run effects of changes in the level of taxation on economic activity, and Romer and Romer (2009b) use them to test the hypothesis that tax cuts restrain government spending. An additional purpose is to provide a better sense of the evolution of U.S. tax policy over the postwar period. As described in Romer and Romer (2009a), the analysis reveals interesting patterns in the frequency and motivation of tax changes over time.

The paper contains two parts. The first discusses in general terms the sources we consider, how we classify motivation, and our methods for identifying the revenue effects and other characteristics of tax changes. The second is a detailed act-by-act discussion of our findings. This detailed summary is designed to provide a sense of the supporting evidence for our conclusions.

I. METHODOLOGY

A. Sources

The sources for the narrative analysis are contemporaneous government documents from both the executive and legislative branches. These documents provide evidence about what policymakers believed at the time the legislation was enacted. The sources are all documents that were released to the public.

Since the impetus for changes in taxes typically comes from the president, we put particular emphasis on executive branch documents. The administration sources that are available yearly are the *Economic Report of the President* (abbreviated as *Economic Report* in what follows), the *Annual Report of the Secretary of the Treasury on the State of the Finances* (abbreviated as Treasury *Annual Report*), and the *Budget of the United States Government* (abbreviated as *Budget*).[1] The *Economic Reports* are typically very good at explaining the motivation for major tax changes, while the latter two sources are most useful for giving a systematic account of all tax law changes and for providing revenue estimates. We also consider relevant presidential speeches and statements.[2] The State of the Union Address, the Annual Budget Message, speeches announcing tax proposals, and statements upon signing tax bills are typically rich sources of information on motivation. And for major bills, the president typically discusses the reasons for the bill repeatedly between the initial proposal and the final passage. In some cases the acceptance speeches at the nominating conventions also include tax proposals and motivation, so we systematically examine those as well.

We also consider Congressional documents. The report of the Ways and Means Committee of

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[1] The *Economic Report* is released in January and discusses tax changes in the previous calendar year. The Treasury *Annual Report* is for a fiscal year, and is generally prepared in the January following the end of the fiscal year. It typically focuses on tax changes that occurred during the fiscal year covered by the report. The Treasury stopped publishing detailed annual reports in 1981. The *Budget* is also for a fiscal year and is usually prepared in the January preceding the beginning of the fiscal year. Therefore, it typically contains information about tax actions roughly two calendar years before the date of the *Budget*. The 1980 *Budget*, for example, was prepared in January 1979, and discusses changes that occurred in calendar 1978.

[2] Presidential speeches and other presidential papers are available online from John T. Woolley and Gerhard Peters, *The American Presidency Project* (www.presidency.ucsb.edu). The citations to speeches in what follows use the titles and dates given by the *American Presidency Project*. The page numbers are the page numbers in our printouts of the speeches, which are obviously affected by the font and margins we choose. We include them to give a sense of the approximate locations of the quotations in the documents.

the House of Representatives for each bill typically includes a section on motivation and revenue estimates. When the House report is on a version of the bill that is very different from the final version, we analyze the report of the Senate Committee on Finance. If neither of these sources provides adequate information, such as when the bill is changed fundamentally by amendment after the reports, we examine any other potentially relevant Congressional reports and analyze the floor debate in the *Congressional Record*. The Conference report on the final version of a bill typically does not discuss motivation, but often provides detailed revenue estimates. Similarly, the Joint Committee on Internal Revenue Taxation (after 1975, the Joint Committee on Taxation) often prepares summaries of tax bills that provide detailed information about their timing and revenue effects. After the formation of the Congressional Budget Office in 1974, their reports, such as the *Budget and Economic Outlook*, are also a useful source of revenue estimates.

For tax changes related to Social Security, we consider two additional sources. The more important is the *Social Security Bulletin*, which typically contains one or two articles on any Social Security tax change. These articles discuss both the motivation and the revenue effects of the changes. If such an article is not available, we consult the *Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance Trust Fund*, which often gives an abbreviated version of the same material.

B. Identifying Legislated Tax Changes

We analyze all significant federal tax actions from 1945 to 2007. We identify these actions from our narrative sources. An action is "significant" if it receives more than incidental reference in our sources. Measures that are referred to only in passing or are discussed only in lists of all measures that affected revenues over some period are excluded. Since even very small tax changes often receive detailed discussion, this rule captures all economically meaningful actions. These actions are almost always legislated changes, but a few are executive actions that changed depreciation guidelines substantially.

We limit our analysis to tax actions that actually change tax liabilities. Tax laws that merely

extend an existing tax are not analyzed. Likewise, executive actions that merely change the timing of withholding but do not change liabilities are excluded. We include tax changes of all types: changes in personal and corporate income taxes, payroll taxes, excise taxes, incentives for investment, and so on.

In all, we identify fifty significant federal tax actions in the postwar era. A few of these involved multiple measures, such as a legislated change and an executive action that are hard to disentangle. Many of the actions led to tax changes in multiple quarters because the changes were phased in.[3]

C. Classifying Motivation

The key aspect of tax changes that we seek to determine from the narrative sources is their motivation. Why did policymakers take the actions they did? We find that the motivation for postwar tax actions can be divided into four categories: spending-driven, countercyclical, deficit-driven, and for long-run growth.

A spending-driven tax change is one motivated by a change in government spending. A classic example would be an increase in taxes because the country was fighting a war. A less extreme example is the tax increase associated with the introduction of Medicare: policymakers decided to have a new social insurance benefit, and they raised payroll taxes to pay for it.

A countercyclical action is a tax change designed to return output growth to normal. Suppose output is predicted to fall in the absence of a fiscal action. A tax cut designed to lessen the fall or return growth to normal is a countercyclical change.

In identifying a countercyclical action, we use policymakers' own estimates of normal growth. To the degree that their estimates of normal growth are overly optimistic, this may tend to lead us to err on the side of identifying too many actions of this type. We deduce policymakers' view of normal growth from their direct statements and from their predictions about the unemployment rate. If the unemployment rate is predicted to rise, we deduce that growth is predicted to be below normal; if the

[3] Tempalski (2006) also lists many major tax bills for the period 1940–2006, and provides estimates of their revenue effects and summaries of their major provisions. His focus is on changes relative to existing law rather than relative to the rules and rates currently in effect. Nonetheless, his list and revenue estimates are broadly similar to ours.

unemployment rate is predicted to fall, we deduce that growth is predicted to be above normal.

Spending-driven and countercyclical tax changes share the characteristic that they are correlated with other forces affecting output in the short run. Both are, at a fundamental level, actions taken in response to current or prospective economic conditions. For this reason, we group them into a broader category which we label endogenous tax changes.

A deficit-driven tax change is a tax increase designed to reduce an inherited budget deficit. Such a change is fundamentally different from a spending-driven action because there is no contemporaneous increase in spending. A deficit-driven tax change is taken in spite of or regardless of its effects on output in the short run.

The most obvious type of deficit-driven tax change is new legislation intended to address an existing deficit. But another type arises when a single piece of legislation calls for both an immediate spending increase and a much-delayed tax increase to pay for the higher spending. For example, in the 1950s, 1960s, and 1970s, bills raising Social Security benefits often called for tax increases to occur long after the spending increases. As with tax increases resulting from legislation designed only to reduce the deficit, there are no systematic contemporaneous increases in spending around the times of these tax increases. Thus it makes sense to group them with the deficit-driven tax changes. The specific rule we use is that a tax increase to pay for a past spending increase is classified as spending-driven if it occurs within a year of the spending increase, and as deficit-driven if it occurs more than a year after.

A long-run tax change is one aimed at raising long-run growth. This category encompasses a wide range of motivations. Tax changes for fairness, efficiency, improved incentives, and a philosophical belief in the benefits of smaller government can all be thought of as being ultimately about long-run growth. What unites these disparate changes is that they are not aimed at returning or keeping output growth at normal; they are designed to raise growth in the long run. Such long-run tax changes are typically tax cuts, but some, especially tax reforms for efficiency and fairness, can be tax increases.

Both deficit-driven and long-run tax changes are not motivated by current or prospective short-run economic conditions. These actions should not be correlated with other developments affecting

output in the opposite direction in the short run.[4] Therefore, we group them into a second broader category which we label exogenous tax changes.[5]

Remarkably, we find that most postwar tax changes have one predominant motivation, and that motivation is consistently mentioned in both executive and legislative sources. However, there are certainly some cases where the sources suggest different motivations, where the motivation changes over the course of the deliberations, or where there genuinely appear to be multiple motivations. For cases where the sources suggest conflicting motivations, we use the most frequently cited motivation. For cases where the motivation changes over time, we use the prevailing motivation at the time of passage. For cases where the sources consistently cite more than one motivation, we suggest a sensible apportionment of the expected revenue effects among the various motivations.

D. Measuring the Size and Timing of Tax Changes

Our primary measure of the magnitude of tax changes is their effect when they were implemented on tax liabilities at the prevailing level of GDP. Measuring the size of tax changes in terms of their impact at the time of implementation is consistent with a large body of evidence—much of it from natural tax experiments—that finds that consumption responds to changes in current disposable income.[6]

Policymakers are almost always concerned with the likely effects of tax changes on revenues at a given level of income. In addition, retrospective figures are rarely available. Thus, in almost every case we construct our main measure of size of tax changes on the basis of information from our narrative

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[4] Deficit-driven tax changes, however, may be correlated with changes affecting output in the same direction. In the 1980s and 1990s, deficit-driven tax changes tended to be part of budget packages that included spending reductions. To see how pervasive a phenomenon this has been, we record any spending declines the narrative sources indicate were linked with the deficit-driven tax increases.

[5] One special case of actions included in this exogenous category are tax changes to offset exogenous tax changes. Occasionally, policymakers cut taxes to counteract the effects of a previously legislated tax increase (say for deficit reduction) because they are concerned about the state of the economy. Clearly, the offsetting tax change is countercyclical in nature. However, classifying it in that way has the peculiar effect of identifying two tax changes of different motivations in a quarter when tax liabilities did not in fact change (assuming the two exactly offset each other). To avoid this, we classify the offsetting change as an action with the same motivation as the tax change it is counteracting. This has the sensible effect of simply zeroing out the initial action (or reducing it, if it is not completely offset).

[6] Examples include Shapiro and Slemrod (1995), Parker (1999), Souleles (1999), and Johnson, Parker, and Souleles (2006).

sources concerning policymakers' estimates of expected revenue.

The most straightforward estimates to use are statements about the expected revenue effects of a tax change at the time it was scheduled to go into effect. Such estimates are often provided in the *Economic Reports*, especially in the 1960s and 1970s. For this reason, we place particular emphasis on revenue figures from this source. When such statements are not available, we construct our revenue estimates from other contemporaneous descriptions of the expected effects of the change on the path of revenues. For example, many tax changes go into effect on January 1 of some year. In these cases, we often use the estimated impact of the change in its first calendar year. When neither straightforward statements of the expected revenue effects nor estimates of the effects in the first calendar year are available, we generally use estimates for the first full fiscal year the law was scheduled to be in effect. The Conference report on the final version of a tax bill is often a particularly rich source of such calendar-year and fiscal-year revenue estimates.

All revenue estimates are expressed at an annual rate. Many sources give revenue estimates out quite far into the future. If the changes in the projected revenue effects are coming from projected growth in the economy, rather than from further changes in the law, we do not include them in our revenue estimates.

We assign revenue effects roughly to the quarter when tax liabilities actually changed. Thus, if a tax law changes taxes in steps, we identify a series of revenue effects. If an action takes effect before the middle of a quarter, we assign it to that quarter. If it takes effect after the middle of the quarter, we assign it to the next quarter.

Many tax changes have retroactive components. For example, tax bills passed part way through the year are often retroactive to January 1. For some applications, such retroactive components introduce unnecessary complications. Therefore, in one version of our revenue estimates, we simply exclude such retroactive features. For applications where such temporary short-run movements are useful or necessary to consider, we provide revenue estimates including the retroactive features. We treat any retroactive component as a one-time levy or rebate in the quarter to which we assign the bill. For example, in

January 1951 Congress passed legislation imposing an excess profits tax retroactive to July 1, 1950. Neglecting the retroactive feature, the tax was expected to raise $3.5 billion at an annual rate starting in 1951Q1. Because of the retroactive component, however, in 1951Q1 there was in effect an additional one-time levy of one-half of $3.5 billion, or $7 billion at an annual rate. Combining these figures implies that, in levels, taxes were higher by $10.5 billion at an annual rate in 1951Q1 and by $3.5 billion at an annual rate in 1951Q2 and subsequent quarters. In changes, this corresponds to an increase of $10.5 billion in 1951Q1 and a decrease of $7 billion in 1951Q2.

In addition to these two versions of a current-liabilities measure of the size of tax changes, we also construct a present-value alternative. If consumer behavior is described by the permanent income hypothesis, tax changes affect behavior not when they are implemented, but when households learn they will occur. For example, if a single bill calls for a series of tax cuts, a measure based on the permanent income hypothesis should code this as a single large cut when households learn the bill will pass. Our baseline measure, in contrast, codes it as a series of cuts as the steps occur.

To construct a measure based on news about future taxes, one would ideally want continuous data on the perceived probabilities of tax changes and the present values of the possible actions. As a step in that direction, our alternative measure is the present value of the legislated tax changes included in a bill at the time of its passage. That is, we take the series of tax changes called for in a bill and discount them to the quarter of passage. This measure adjusts the timing of the revenue effects of an action to be much closer to the time the news of the action became available.

Computing this alternative measure based on present values requires discounting the expected revenue effects to the quarter the bill was passed. When tax actions (or portions of them) are implemented with a lag, the delay is often a few years, and rarely more than that. The specific interest rate we use for discounting is therefore the three-year Treasury bond rate.[7] When the individual actions

[7] The data are from the Board of Governors of the Federal Reserve System, www.bog.gov, series H15/H15/RIFLGFCY03_N.M (data for 2/15/08). The data do not begin until April 1953. We extend the series back to 1945Q1 using the 3-month Treasury bill rate (series H15/H15/RIFSGFSM03_N.M, also 2/15/08). The two interest rates differ by only 0.3 percentage points in April 1953.

for a given act have multiple motivations, we calculate a separate present value for each type of motivation.[8]

The economic effects of tax actions almost certainly depend not on the absolute size of the actions, but on their size relative to the economy. In our empirical work using our series (Romer and Romer, 2009a, 2009b), we therefore scale both our main measure and the present value measure by nominal GDP at the time of the change.

E. Other Characteristics

While the narrative analysis focuses most closely on classifying the motivation for the tax changes and the revenue effects, we also systematically collect information about other characteristics. One of these is the permanence of the action. Some tax changes are legislated to be permanent, while others have a stated expiration date. Classifying duration, however, is complicated because tax bills often include a mixture of temporary and permanent actions, and because there is ambiguity about what time span counts as temporary. We designate an action as temporary if a substantial part of the tax change is explicitly legislated to end within a few years.

We also record the nature of the tax change. Was it a change in personal income taxes, corporate taxes, incentives for investment, excise taxes, payroll taxes, or something else? For many of these, one can ask whether it was a change in marginal or average rates. Again, classifying actions along these dimensions is complicated because a single bill often changes multiple taxes. We give a sense of the main types of changes included in each action, and whether the act contains a significant change in

[8] One complication that arises in calculating present values involves some of the tax changes classified as deficit-driven. As described above, a tax increase that is legislated in a bill increasing spending, but that occurs more than a year after the spending increase that was its ultimate motivation, is classified as deficit-driven in our baseline series. This makes sense in the framework where output reacts to the actual change in taxes, because the tax change is substantially after the spending change. But, since the news of the future tax change occurs at approximately the same time as the increase in spending, the tax change should be treated as spending-driven in a framework emphasizing news. For this reason, we reclassify six deficit-driven tax changes as spending-driven when we compute our present-value measure. These observations are the 1954Q1 increase from the Social Security Amendments of 1950; the 1954Q1 decrease from PL125 (the Expiration of Excess Profits Tax and of Temporary Income Tax Increases); the 1960Q1 increase from the Social Security Amendments of 1958; the 1963Q1 increase from the Social Security Amendments of 1961; the 1971Q1 increase from the Social Security Amendments of 1967; and the 1978Q1 increase from the 1972 changes to Social Security.

marginal rates.

Because these other characteristics are not the central focus of our analysis, in the act-by-act discussion that follows, we only give our conclusions about the permanence and nature of each tax change. We do not provide the detailed documentation of the sources and analysis that led to these conclusions.

F. Results

The end result of this narrative analysis is a time series of tax changes, measured in various ways, classified by motivation. Table 1 presents these time series. The first four columns show tax changes by motivation measured using current liabilities, excluding retroactive changes. The second four columns show tax changes measured using current liabilities, including retroactive changes. The final four columns show tax changes measured as the present value of all tax changes included in a given bill, dated in the quarter of passage. Because multiple laws may change taxes in the same quarter, the table sums tax changes of the same motivation to present a single estimate for each motivation for each quarter.

TABLE 1
TAX CHANGES CLASSIFIED BY REVENUE CONCEPT AND MOTIVATION

	Change in Liabilities (excluding retroactive changes)				Change in Liabilities (including retroactive changes)				Present Value			
Date	SD	CC	DD	LR	SD	CC	DD	LR	SD	CC	DD	LR
1945:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1945:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1945:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1945:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.89	0.0	0.0	0.0
1946:1	-5.9	0.0	0.0	0.0	-5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1946:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1946:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1946:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1947:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1947:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1947:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.74	0.0
1947:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1948:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1948:2	0.0	0.0	0.0	-5.0	0.0	0.0	0.0	-10.0	0.0	0.0	0.0	-5.01
1948:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
1948:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1949:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1949:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1949:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1949:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1950:1	0.0	0.0	0.75	0.0	0.0	0.0	0.75	0.0	0.0	0.0	0.0	0.0
1950:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1950:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.23	0.0	0.0	0.0
1950:4	4.7	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1951:1	3.8	0.0	0.0	0.0	9.3	0.0	0.0	0.0	3.52	0.0	0.0	0.0
1951:2	0.0	0.0	0.0	0.0	-7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1951:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1951:4	5.4	0.0	0.0	0.0	10.0	0.0	0.0	0.0	5.42	0.0	0.0	0.0
1952:1	0.0	0.0	0.0	0.0	-4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1952:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1952:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1952:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1953:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1953:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1953:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1953:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1954:1	-3.7	0.0	0.0	0.0	-3.7	0.0	0.0	0.0	-5.0	0.0	0.0	0.0
1954:2	-1.0	0.0	0.0	0.0	-1.0	0.0	0.0	0.0	-1.0	0.0	0.0	0.0
1954:3	0.0	0.0	0.0	-1.4	0.0	0.0	0.0	-4.2	0.50	0.0	0.0	-1.41
1954:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0
1955:1	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1955:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1955:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1955:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1956:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1956:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.0
1956:3	0.6	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.89	0.0	0.0	0.0
1956:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Date	Change in Liabilities (excluding retroactive changes)				Change in Liabilities (including retroactive changes)				Present Value			
	SD	CC	DD	LR	SD	CC	DD	LR	SD	CC	DD	LR
1957:1	0.9	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1957:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1957:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1957:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1958:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1958:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.50
1958:3	0.0	0.0	0.0	-0.5	0.0	0.0	0.0	-0.5	2.90	0.0	0.0	0.0
1958:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1959:1	1.1	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1959:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1959:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.59	0.0
1959:4	0.0	0.0	0.6	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0
1960:1	0.0	0.0	1.9	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0
1960:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1960:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1960:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1961:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1961:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.28	0.0	0.0	0.0
1961:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1961:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1962:1	0.4	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1962:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1962:3	0.0	0.0	0.0	-1.35	0.0	0.0	0.0	-4.05	0.0	0.0	0.0	-1.70
1962:4	0.0	0.0	0.0	-0.9	0.0	0.0	0.0	-0.9	0.0	0.0	0.0	0.0
1963:1	0.0	0.0	2.0	0.6	0.0	0.0	2.0	3.3	0.0	0.0	0.0	0.0
1963:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1963:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1963:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1964:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-12.72
1964:2	0.0	0.0	0.0	-8.4	0.0	0.0	0.0	-16.8	0.0	0.0	0.0	0.0
1964:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	0.0	0.0	0.0	0.0
1964:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1965:1	0.0	0.0	0.0	-4.5	0.0	0.0	0.0	-4.5	0.0	0.0	0.0	0.0
1965:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-3.43
1965:3	0.0	0.0	0.0	-1.75	0.0	0.0	0.0	-1.75	7.29	0.0	0.0	0.0
1965:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1966:1	6.0	0.0	0.0	-1.75	6.0	0.0	0.0	-1.75	0.0	0.0	0.0	0.89
1966:2	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0
1966:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1966:4	0.0	1.5	0.0	0.0	0.0	1.5	0.0	0.0	0.0	1.5	0.0	0.0
1967:1	1.5	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1967:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.63
1967:3	0.0	0.0	0.0	-1.6	0.0	0.0	0.0	-5.5	0.0	0.0	0.0	0.0
1967:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0	0.0	0.0
1968:1	2.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	7.89	0.0	0.0	0.0
1968:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.25	0.0	0.0
1968:3	0.0	8.5	0.0	0.0	0.0	25.5	0.0	0.0	0.0	0.0	0.0	0.0
1968:4	0.0	0.0	0.0	0.0	0.0	-17.0	0.0	0.0	0.0	0.0	0.0	0.0
1969:1	3.0	1.7	0.0	0.0	3.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0
1969:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1969:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1969:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-11.72	0.0	-1.76

	Change in Liabilities (excluding retroactive changes)				Change in Liabilities (including retroactive changes)				Present Value			
Date	SD	CC	DD	LR	SD	CC	DD	LR	SD	CC	DD	LR
1970:1	0.0	-6.7	0.0	0.0	0.0	-3.1	0.0	0.0	0.0	0.0	0.0	0.0
1970:2	0.0	0.0	0.0	0.0	0.0	-3.6	0.0	0.0	0.0	0.0	0.0	0.0
1970:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1970:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1971:1	0.0	-4.7	3.6	-3.8	0.0	-4.7	3.6	-3.8	2.95	0.0	0.0	-2.8
1971:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1971:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1971:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-7.98
1972:1	3.1	-1.1	0.0	-9.0	3.1	-1.1	0.0	-15.7	0.0	0.0	0.0	0.0
1972:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	0.0	0.0	0.0	0.0
1972:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.84	0.0	0.0	0.0
1972:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1973:1	10.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1973:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1973:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.05	0.0	0.0	0.0
1973:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1974:1	4.2	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1974:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1974:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1974:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1975:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-13.32	0.0	0.0
1975:2	0.0	-45.3	0.0	0.0	0.0	-58.1	0.0	0.0	0.0	0.0	0.0	0.0
1975:3	0.0	32.5	0.0	0.0	0.0	45.3	0.0	0.0	0.0	0.0	0.0	0.0
1975:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1976:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1976:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1976:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1976:4	0.0	0.0	0.0	2.4	0.0	0.0	0.0	2.4	0.0	0.0	0.0	1.61
1977:1	0.0	0.0	0.0	-0.8	0.0	0.0	0.0	-0.8	0.0	0.0	0.0	0.0
1977:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-7.10
1977:3	0.0	0.0	0.0	-7.0	0.0	0.0	0.0	-21.0	0.0	0.0	0.0	0.0
1977:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	0.0	0.0	24.34	0.0
1978:1	0.0	0.0	2.9	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0
1978:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1978:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1978:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-18.50
1979:1	0.0	0.0	8.8	-18.9	0.0	0.0	8.8	-18.9	0.0	0.0	0.0	0.0
1979:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1979:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1979:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1980:1	0.0	0.0	1.7	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0
1980:2	0.0	0.0	0.0	8.2	0.0	0.0	0.0	8.2	0.0	0.0	0.0	15.48
1980:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1980:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1981:1	0.0	0.0	17.2	4.1	0.0	0.0	17.2	4.1	0.0	0.0	0.0	0.0
1981:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1981:3	0.0	0.0	0.0	-8.9	0.0	0.0	0.0	-26.7	0.0	0.0	0.0	-125.90
1981:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.8	0.0	0.0	0.0	0.0
1982:1	0.0	0.0	1.5	-44.7	0.0	0.0	1.5	-44.7	0.0	0.0	0.0	0.0
1982:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1982:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.85	0.0
1982:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Date	Change in Liabilities (excluding retroactive changes)				Change in Liabilities (including retroactive changes)				Present Value			
	SD	CC	DD	LR	SD	CC	DD	LR	SD	CC	DD	LR
1983:1	0.0	0.0	26.4	-57.3	0.0	0.0	26.4	-57.3	0.0	0.0	0.0	0.0
1983:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.30	0.0
1983:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1983:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1984:1	0.0	0.0	12.1	-36.1	0.0	0.0	12.1	-36.1	0.0	0.0	0.0	0.0
1984:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1984:3	0.0	0.0	8.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	8.0	0.0
1984:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1985:1	0.0	0.0	8.8	0.0	0.0	0.0	8.8	0.0	0.0	0.0	0.0	0.0
1985:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1985:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1985:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1986:1	0.0	0.0	4.2	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0
1986:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1986:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1986:4	0.0	0.0	0.0	22.7	0.0	0.0	0.0	22.7	0.0	0.0	0.0	-10.12
1987:1	0.0	0.0	0.0	-7.2	0.0	0.0	0.0	-7.2	0.0	0.0	0.0	0.0
1987:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1987:3	0.0	0.0	0.0	-20.0	0.0	0.0	0.0	-20.0	0.0	0.0	0.0	0.0
1987:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.59	0.0
1988:1	0.0	0.0	26.3	-7.2	0.0	0.0	26.3	-7.2	0.0	0.0	0.0	0.0
1988:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1988:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1988:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1989:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1989:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1989:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1989:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1990:1	0.0	0.0	10.3	0.0	0.0	0.0	10.3	0.0	0.0	0.0	0.0	0.0
1990:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1990:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1990:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.55	0.0
1991:1	0.0	0.0	35.2	0.0	0.0	0.0	35.2	0.0	0.0	0.0	0.0	0.0
1991:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1991:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1991:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1992:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1992:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1992:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1992:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1993:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1993:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1993:3	0.0	0.0	22.8	0.0	0.0	0.0	68.4	0.0	0.0	0.0	41.64	0.0
1993:4	0.0	0.0	5.3	0.0	0.0	0.0	-40.3	0.0	0.0	0.0	0.0	0.0
1994:1	0.0	0.0	13.4	0.0	0.0	0.0	13.4	0.0	0.0	0.0	0.0	0.0
1994:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1994:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1994:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1995:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1995:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1995:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1995:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	Change in Liabilities (excluding retroactive changes)				Change in Liabilities (including retroactive changes)				Present Value			
Date	SD	CC	DD	LR	SD	CC	DD	LR	SD	CC	DD	LR
1996:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1996:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1996:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1996:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1997:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1997:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1997:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-20.30	0.0	1.93	0.0
1997:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1998:1	-20.9	0.0	0.0	0.0	-20.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1998:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1998:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1998:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1999:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1999:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1999:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1999:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2000:1	0.0	0.0	1.7	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0
2000:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2000:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2000:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2001:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2001:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-2.42	0.0	-80.35
2001:3	0.0	-57.0	0.0	0.0	0.0	-171.0	0.0	0.0	0.0	0.0	0.0	0.0
2001:4	0.0	0.0	0.0	0.0	0.0	114.0	0.0	0.0	0.0	0.0	0.0	0.0
2002:1	0.0	57.0	0.6	-83.0	0.0	57.0	0.6	-83.0	0.0	-37.23	0.0	0.0
2002:2	0.0	-36.9	0.0	0.0	0.0	-110.7	0.0	0.0	0.0	0.0	0.0	0.0
2002:3	0.0	0.0	0.0	0.0	0.0	73.8	0.0	0.0	0.0	0.0	0.0	0.0
2002:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2003:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2003:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-60.64
2003:3	0.0	0.0	0.0	-126.4	0.0	0.0	0.0	-316.8	0.0	0.0	0.0	0.0
2003:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	190.4	0.0	0.0	0.0	0.0
2004:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2004:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2004:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2004:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2005:1	0.0	0.0	0.0	68.1	0.0	0.0	0.0	68.1	0.0	0.0	0.0	0.0
2005:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2005:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2005:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2006:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2006:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2006:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2006:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2007:1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2007:2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2007:3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2007:4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Notes: SD is spending-driven; CC is countercyclical; DD is deficit-driven; and LR is long-run. The data are expressed in billions of current dollars.

II. ACT-BY-ACT SUMMARY OF OUR FINDINGS

This section presents a detailed discussion of each of the fifty federal tax actions we identify in the period 1945 to 2007. We describe the timing, motivation, revenue effects, permanence, and nature of the tax changes. For the motivation and revenue effects, we attempt to provide enough quotations and citations that readers can see some of the evidence behind our conclusions.

Revenue Act of 1945

Signed: 11/8/45
Change in Liabilities:
1946Q1 –$5.9 billion (Endogenous; Spending-driven)
Present Value:
1945Q4 –$5.89 billion (Endogenous; Spending-driven)

The Revenue Act of 1945 reduced taxes substantially in January 1946. The motivation for the tax cut was concern that the decline in government spending following the end of World War II would lead to deflation and depression. The tax cut was designed to spur both consumer spending and business investment, and so replace government demand with private demand. The corporate tax reduction included in the bill was also seen as a useful supply-side policy aimed at spurring reconversion.

This motivation appeared in presidential speeches even before the end of the war. Franklin Roosevelt laid the groundwork for the tax cut in his Annual Budget Message in January 1945. He said: "full employment in peacetime can be assured only when the reduction in war demand is approximately offset by additional peacetime demand from the millions of consumers, businesses, and farmers" (1/3/45, p. 8). He went on to say: "we must overhaul the wartime tax structure to stimulate consumers' demand and to promote business investment. The elements of such a tax program should be developed now so that it can be put into effect after victory" (p. 9).

Truman sounded similar themes in his Special Message to the Congress Presenting a 21-Point Program for the Reconversion Period on September 6, 1945. He stated: "I recommend that a transitional tax bill be enacted as soon as possible to provide limited tax reductions for the calendar year 1946. … [T]he new bill should aim principally at removing barriers to speedy reconversion and to the expansion of our peacetime economy" (p. 12). His January 1946 Message to the Congress on the State of the Union and on the Budget for 1947 was even more explicit. It stated: "No backlog of demand can exist very long in the face of our tremendous productive capacity. We must expect again to face the problem of shrinking demand and consequent slackening in sales, production, and employment. This possibility of a deflationary spiral in the future will exist unless we now plan and adopt an effective full employment program" (1/21/46, p. 9). Among the programs Truman thought would help were the recently passed tax reductions that "were designed to encourage reconversion and peacetime business expansion" (p. 25).

Truman made clear the link between the decline in spending and the tax cut in his explanation for why he was not recommending a larger cut: "We must reconcile ourselves to the fact that room for tax reduction at this time is limited. A total war effort cannot be liquidated overnight" (Special Message to the Congress, 9/6/45, p. 13). Secretary of the Treasury Fred Vinson also stressed this link in testimony to the House Ways and Means Committee in October 1945. He stated: "The rate of government expenditures—and particularly those expenditures which find their way currently into the pockets of consumers—will be declining rapidly" and "these are deflationary factors" (1946 Treasury *Annual Report*, p. 328). Vinson felt that "such deflationary dangers as we face are the byproducts … of a titanic physical change-over from war production to peace production. … Therefore, one of the primary objectives of our fiscal policy must be to encourage the boldest, the quickest and most venturesome expansion of peacetime enterprise by business investors" (p. 328). More generally, he believed that "[t]ax reduction for 1946 should be designed to afford the maximum aid and stimulus to reconversion and expansion that is compatible with our revenue needs" (p. 329).

The motivation for the tax reduction given in Congressional sources is very similar to that in executive branch documents. The House Ways and Means Committee report on the bill said: "The bill has been designed to aid both individuals and businesses in the difficult period of transition from war to peace. To accomplish this your committee believes that it is necessary to reduce the high wartime tax rates to provide incentives for business to expand and to increase consumer purchasing power" (79th Congress, 1st Session, House of Representatives Report No. 1106, 10/9/45, p. 1). The House report implicitly invoked the fall in expenditure as a factor when it said: "Federal expenditures for calendar year

1946 are expected to be much lower, but it is anticipated that the deficit will still be sizable. In view of the probable extent of the deficit in 1946 it is necessary to limit the over-all reduction in taxes" (p. 1). The Senate Finance Committee report on the bill gave virtually the same motivation (79th Congress, 1st Session, Senate Report No. 655, 10/23/45, p. 1). Finally, a House document summarizing the provisions of the bill after passage also suggested a key role for declining expenditure as a motivation for the bill. It stated: "All things considered—the modesty of the reductions made, the nature of the reductions, the prospects of a dwindling Federal budget, and the encouragement given to the production and sale of goods—the new law should greatly aid the reestablishment of a healthful economic environment" (79th Congress, 1st Session, House Document No. 383, "Revenue Act of 1945: Summary of Principal Provisions and Questions and Answers," 1945, p. 2).

The motivation given for the tax cut by both the president and Congress shows the somewhat blurry line between spending-driven and countercyclical tax changes. Policymakers in 1945 were concerned that output growth would fall following the end of the war and cut taxes to try to maintain growth. But, the fundamental shock they were trying to counteract was the decline in spending. For this reason, we classify this tax cut as an endogenous, spending-driven action.

The 1946 Treasury *Annual Report* (pp. 90-93, 346), and House Document No. 383 provide detailed (and very similar) estimates of the revenue effects and timing of the changes contained in the bill. The bill was expected to reduce revenues by $5.9 billion at an annual rate. All its major provisions went into effect on January 1, 1946. A few minor changes did not go into effect until July 1, 1946, and a few were retroactive; however, the expected revenue effects of these provisions were small. Our estimate of the revenue effect of the bill is therefore a reduction of $5.9 billion in 1946Q1.

The tax cut was roughly evenly divided between reductions in corporate taxes and reductions in the personal income tax. The personal income tax reductions raised exemptions for all taxpayers and lowered marginal rates. The changes were intended to be permanent.

Social Security Amendments of 1947

Signed: 8/6/47
Change in Liabilities:
1950Q1 +$0.75 billion (Exogenous; Deficit-driven)
Present Value:
1947Q3 +$0.74 billion (Exogenous; Deficit-driven)

The Social Security Amendments of 1947 postponed until January 1, 1950 an increase in the combined Social Security tax rate from 2 percent to 3 percent. The increase had been scheduled for 1940 in the original Social Security Act and had been repeatedly postponed (1948 *Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance Trust Fund*, p. 2). The increase finally occurred in 1950, as called for in the 1947 amendments. The amendments also provided for a rise in the tax rate on January 1, 1952. This provision was superceded by the Social Security Amendments of 1950.

The reason the original Social Security Act provided for the increase in the tax rate was to preserve the actuarial soundness of the system. Total spending was projected to increase gradually as more people qualified for benefits. Therefore, taxes needed to increase as well. Thus the fundamental motive for the tax increase that ultimately occurred was concern about the long-run fiscal situation of the Social Security system. There was no particular benefit increase in the quarter of the tax increase, so it was not a tax change to counteract a current spending change. Furthermore, there is no evidence that the decision to schedule the increase for 1950 was related to expectations of business cycle conditions in 1950. Rather, the increase was postponed from 1948 simply because it was not yet needed. For example, the 1948 *Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance Trust Fund* reported, "The war and its aftermath, as well as the recovery from the depression of the early thirties, have been accompanied by important changes in many of the factors which determine the benefits

and contributions under the program." As a result, the "cost of benefits under the system [as a percent of payroll] … are lower than the estimated costs of the program when it was adopted" (p. 31).

Because the tax increase was designed to protect the actuarial soundness of the Social Security system, and occurred for reasons unrelated to spending changes or the state of the economy, it is an exogenous, deficit-driven action.

The *Midyear Economic Report of the President* for 1950 stated that the rise "increased the annual rate of cash receipts by about three-quarters of a billion dollars" (p. 90). Because the increase occurred at the beginning of 1950, we date it as taking place in 1950Q1.

The act increased marginal tax rates on low-income taxpayers. The tax increase was intended to be permanent.

Revenue Act of 1948

Signed: Presidential veto overridden 4/2/48
Change in Liabilities (excluding retroactive changes):
1948Q2 –$5.0 billion (Exogenous: Long-run)
Change in Liabilities (including retroactive changes):
1948Q2 –$10.0 billion (Exogenous; Long-run)
1948Q3 +$5.0 billion (Exogenous; Long-run)
Present Value:
1948Q2 –$5.01 billion (Exogenous; Long-run)

The Revenue Act of 1948 was passed over President Truman's veto. Thus, it is one tax change where the motivation of Congress was clearly different from that of the president. An exhaustive study of Congressional documents by Holmans (1961, pp. 60-101) concludes that the act was passed almost entirely for long-run and ideological reasons; current economic conditions played almost no role. Our reading of similar documents agrees with Holmans's.

The tax cut eventually contained in the Revenue Act of 1948 was first proposed during the 1946 Congressional campaign. A bill was passed and successfully vetoed in 1947 before being passed and the veto overridden in 1948. From its inception, the key motivation for the tax cut was to improve incentives through reducing marginal tax rates. In introducing the 1947 version of the bill, Harold Knutson, sponsor of the bill and Chairman of the House Ways and Means Committee, said a key goal was to "remove the deterrents to managerial efforts and to the investment of venture capital" (*Congressional Record*, 80th Congress, 1st Session, Volume 93—Part 2, 3/26/47, p. 2637). Elaborating, he said, "It is the additional tax taken out of the extra dollar of income … that determines whether or not it is worth while to make the effort or incur the risk" (p. 2638). Both the House and Senate reports on the final bill expressed similar motivations. The House report said: "H. R. 4790 provides tax reduction, relief, and equalization. It reduces the present extremely high rates of the individual income tax. These rates were a product of wartime conditions, and constitute a serious obstacle to the increase in production needed to relieve current inflationary pressures. The reduction of these rates also is essential to the long-run improvement in the American standard of living" (80th Congress, 2d session, House of Representatives Report No. 1274, 1/27/48, p. 1). Similarly, the Senate report stated: "Your committee's bill is designed to provide a stimulus to labor, management, and venture capital" (80th Congress, 2d session, Senate Report No. 1013, 3/16/48, p. 1).

The very fact that the bill was first proposed nearly two years before its eventual passage and under relatively strong economic conditions makes it unlikely that short-run economic considerations were an important motivating force. The House report barely mentioned the possibility of a recession. Most of the discussion was about whether the tax cut would increase inflation. The report stated: "your committee believes that increased production [from improved incentives] is the most satisfactory answer to the high prices resulting from the pressure of pent-up demand on a limited supply" (House Report No.

1274, p. 11). The Senate report indicated: "This tax bill is being presented at a time when the future of business conditions is extremely difficult to predict" (Senate Report No. 1013, p. 10). It treated inflation and recession as roughly equally likely and said that "should business begin to taper off, the effects of the tax reduction upon incentives to work and to invest would be extremely important, as would also the additional purchasing power generated by the increase in exemptions" (p. 13).

The administration certainly did not believe that the tax cut was needed to counteract a likely significant recession. In response to the early proposals for tax reduction, the president's 1948 Budget Message stated: "There is no justification now for tax reduction," and "[s]hould such a recession occur, it would be a temporary slump growing out of transition period difficulties and would call for no revision in our budget policy" (1948 *Budget*, p. M5). In his speech vetoing the 1948 cut, Truman said "the bill would greatly increase the danger of further inflation, by adding billions of dollars of purchasing power at a time when demand already exceeds supply at many strategic points in the economy" (Veto of the Income Tax Reduction Bill, 4/2/48, p. 1). The *Midyear Economic Report of the President* for 1948 saw no sign of a downturn and focused almost entirely on the problem of excess demand and inflation (see, for example, pp. 3-5, 42, 45). This focus on strong economic conditions by the president adds credence to the view that current and prospective economic conditions were not a major motivation for the tax cut.

Because the tax cut was motivated by long-run concerns and political ideology, and not primarily by concern about short-run economic conditions, we classify it as an exogenous, long-run action.

The bill was passed at the beginning of April, so we date the tax cut in 1948Q2. The 1948 *Midyear Economic Report* said that the tax cut reduced revenues by $5 billion (p. 4). This number was repeated in Truman's veto message (4/2/48, p. 2). The Report of the Senate Finance Committee on the bill gave an estimate of the annual revenue decline of $4.8 billion (Senate Report No. 1013, p. 2). Since all the estimates are so similar, we follow our usual practice of using the estimate from the *Economic Report*. The cut was retroactive to January 1, 1948 (1950 *Budget*, p. 1350). Since the legislation was enacted in the second quarter, this means that in effect that were two quarters' worth of tax reduction—or $10 billion at an annual rate—in the second quarter. Thereafter, taxes were lower than before by $5 billion at an annual rate. In changes, this corresponds to an exogenous tax cut of $10 billion in 1948Q2 and an increase of $5 billion in 1948Q3. If one neglected the retroactive element, there would be simply a tax cut of $5 billion in 1948Q2.

The act reduced tax rates for all taxpayers, with the percentage reduction in rates being largest for low-income taxpayers. Thus, the bill reduced marginal rates. It also increased the personal exemption. The tax changes were designed to be permanent. While there was much discussion of cutting expenditures at the same time, the actual net reduction turned out to be very small.

Social Security Amendments of 1950

Signed: 8/28/50
Change in Liabilities:

1951Q1	+$0.3 billion	(Endogenous; Spending-driven)
1954Q1	+$1.3 billion	(Exogenous; Deficit-driven)

Present Value:

1950Q3	+$1.54 billion	(Endogenous; Spending-driven)

These amendments provided for extremely large increases in Social Security benefits starting in September 1950 and for large expansions in coverage beginning in January 1951. The amendments raised the maximum earnings subject to the Social Security tax from $3000 to $3600, effective January 1, 1951. It also called for a series of future increases in the Social Security tax rate (*Social Security Bulletin*, October 1950, pp. 3-5, 10-14). Only the increase in the combined rate from 3 to 4 percent on January 1, 1954 actually occurred as provided for in the legislation, however.

The original Social Security Act had called for gradual increases in the payroll tax rate over time

(1948 *Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance Trust Fund*, p. 2). In its deliberations leading up to the 1950 amendments, Congress was more explicit about its views concerning how Social Security should be financed. The Ways and Means Committee stated that it was "firmly of the belief that the old-age, survivors, and disability insurance program should be on a completely self-supporting basis. Accordingly, the bill eliminates the provision added in 1943 authorizing appropriations to the program from general revenues" (81st Congress, 1st Session, House of Representatives Report No. 1300, p. 31). On the one hand, Congress did not wish to attempt to finance the system with a tax that was constant over time, as that would lead to a very large excess of revenues over expenditures in the short run. On the other hand, it did not wish to match current taxes and spending, because that would imply very low tax rates in the short run and sharply rising rates over time. It instead chose an intermediate strategy of gradually rising rates that nonetheless implied a substantial build-up in the Social Security trust fund in the medium run.

Consistent with this strategy, the focus of analyses of Social Security's finances at the time of the 1950 and subsequent amendments was on present values of receipts and expenditures, not on their short-run levels. Increases in benefits were typically financed by adjustment of the planned path of Social Security tax rates into the distant future. The 1950 amendments, for example, called for a change in the tax base in 1952 and for changes in the tax rate in 1954, 1960, 1965, and 1970.

As this discussion suggests, there were two central motivations for the tax increases in 1951 and 1954 that resulted form the 1950 amendments: the increases in Social Security spending that resulted from the amendments, and ensuring the long-term fiscal soundness of the system. The 1951 *Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance Trust Fund* stated, "The schedule of contribution rates was revised to yield larger amounts of future contribution income with a view not only to meeting the higher benefit outlays of the liberalized program but also to making the system self-supporting" (p. 3).

Thus, the 1951 increase in the tax base was tied to spending increases that occurred at approximately the same time, and so is an endogenous, spending-driven action. The 1954 increase in the tax rate is different. It was explicitly motivated by a desire to maintain the actuarial soundness of the system in light of the benefit increase. But it occurred more than three years after the benefit increase, so it seems unlikely that the spending increase could have had any substantial effect on the dynamics of the economy in the wake of the tax increase. For this reason, we classify the 1954 tax increase as an exogenous, deficit-driven action.

The 1955 *Economic Report* stated that the 1954 rate increase raised revenues by $1.3 billion at an annual rate (pp. 49, 112). We therefore identify an exogenous tax increase of $1.3 billion in 1954Q1. Our contemporary sources do not provide any estimates of the revenue effects of the 1951 base increase. Thus we need to depart from our usual approach of using contemporary estimates of the revenue effects. At the same time, we want to keep our procedure relatively simple. We therefore estimate the revenue effects as follows. Contemporary accounts suggest that throughout the 1950s, about half of full-time workers covered by Social Security reached the taxable maximum (for example, *Social Security Bulletin*, September 1954, p. 7). We therefore treat the 20 percent increase in the base as equivalent to a 10 percent increase in the tax rate. That is, since the base increased by a fifth and since this affected about one-half of covered workers, we can estimate the revenue effect as one-tenth of overall Social Security revenues prior to the increase, or one-eleventh of overall Social Security revenues after the increase. Using revenues prior to the increase is complicated by the 1950 increase in the tax rate. We therefore use fiscal 1952 Social Security revenues, which were $3.6 billion (1954 *Budget*, p. 1092). Our estimate of the revenue effect is one-eleventh of this amount, or $0.3 billion. The increase occurred in 1951Q1.

As described above, in calculating the present value of some tax changes, it is appropriate to change the classification of the motivation (see n. 8). In our baseline series, a tax increase that is legislated in a bill increasing spending, but that occurs more than a year after the spending increase that was its ultimate motivation, is classified as deficit-driven. This makes sense in the framework where output reacts to the actual change in taxes because the tax change is substantially after the spending change. But, in a framework emphasizing news, the future tax change should be treated as spending-

driven. For this reason, we reclassify the 1954Q1 increase from the Social Security Amendments of 1950 as spending-driven when measuring tax changes in present value terms.

These tax changes increased marginal rates on low- and middle-income taxpayers. The increases were legislated as permanent.

Revenue Act of 1950

Signed: 9/23/50
Change in Liabilities (excluding retroactive changes):
1950Q4 +$4.7 billion (Endogenous; Spending-driven)
Change in Liabilities (including retroactive changes):
1950Q4 +$6.2 billion (Endogenous; Spending-driven)
1951Q1 –$1.5 billion (Endogenous; Spending-driven)
Present Value:
1950Q3 +$4.69 billion (Endogenous; Spending-driven)

The motivation for this tax increase was the increase in defense spending related to the Korean War. The *Midyear Economic Report of the President* for 1950 stated:

> There is now no need to reduce any taxes to stimulate business recovery. That recovery even before the development in Korea was more vigorous than most expected, and increased military spending will now accelerate this trend. The need to reduce … the deficit is also greater now, because of the reappearance of strong inflationary forces. The amount of revenues required to accomplish this will also be greater, because the military situation and the general world outlook make inevitable an overall increase in public outlays of many billions of dollars in this fiscal year (p. 10).

Truman reiterated this motivation on November 14, 1950, saying: "After the communist aggression in Korea last summer, the Congress recognized the need for greatly increasing the Government's revenues to meet the grave dangers that confront our country" (Letter to Committee Chairmen on Taxation of Excess Profits, p. 1). He also said: "An adequate tax program is our strongest weapon in preventing inflation" (p. 1).

The Congressional discussion of the bill parallels that of the administration. The Revenue Act of 1950 began as a bill to reduce excise taxes. The Korean War broke out just before the House passed its version. According to the Senate report on the bill: "Military action in Korea coupled with substantial increases in defense and related expenditures has made it necessary to convert the excise tax reduction bill passed by the House in June of this year into a bill to raise revenues" (81st Congress, 2d Session, Senate Report No. 2375, 8/22/50, p. 1). The report was explicit that the tax increase was motivated solely by the increase in expenditures. It stated: "there is general agreement that these rates must be raised in view of the new expenditures required by the crisis in international affairs" (p. 2). In introducing the thoroughly amended bill to the Senate for debate, Senator George, chairman of the Senate Committee on Finance, stated: "This bill is a first step in the financing of the expanded military program resulting from the war in Korea" (*Congressional Record*, 81st Congress, 2d Session, Volume 96—Part 10, 8/24/50, p. 13268). The most heated part of the debate concerned whether the tax increase was large enough to deal with the inflation that might result from the increase in defense expenditures. Senator Douglas stated: "It seems to me that the tax bill … will raise only a small fraction of the revenue which is needed. It will necessitate borrowing, and will therefore create inflation" (p. 13281). The Senate report anticipated this criticism, saying: "It is not anticipated that these [tax] increases will be of sufficient size to offset the new defense and related expenditures. However, this bill accomplishes all that can be done quickly" (Senate Report No. 2375, p. 1).

The quotations make it clear that both the administration and Congress understood that the increase in defense spending, holding revenues the same, would cause the economy to boom and inflation to rise. The tax increase was designed to counteract this anticipated rise and hold output growth close to normal. Therefore, by our criteria, this is an endogenous, spending-driven tax increase.

The bill was signed at the end of the third quarter of 1950, so we date the tax increase in 1950Q4. The president's statement on November 14, 1950 said that the act provided "4.6 billion dollars of additional revenue annually" (Letter to Committee Chairmen on Taxation of Excess Profits, p. 1). The 1951 *Economic Report* gave a number of $4.7 billion (p. 38). Given that the two numbers are so close, we follow our usual practice of using the number from the *Economic Report*. The corporate tax increase, which was approximately $1.5 billion at an annual rate, was retroactive to July 1, 1950 (1950 Treasury *Annual Report*, p. 37); the increase in individual income taxes was effective October 1, 1950 (1950 Treasury *Annual Report*, pp. 36-37; 1952 *Economic Report*, pp. 131-132). Adding the retroactive component of $1.5 billion (from one extra quarter) to the steady-state effect of $4.7 billion yields an endogenous tax increase of $6.2 billion in 1950Q4. The return to the steady-state effect in the next quarter implies an endogenous tax cut of $1.5 billion in 1951Q1. If one chose to neglect the retroactive aspect of this tax cut, the revenue effect would be just an increase of $4.7 billion in 1950Q4.

The tax increase took the form of higher marginal tax rates on individuals and corporations. The tax increase was legislated to be permanent (1950 Treasury *Annual Report*, pp. 36-37).

<u>Excess Profits Tax Act of 1950</u>

Signed: 1/3/51
Change in Liabilities (excluding retroactive changes):
    1951Q1 +$3.5 billion (Endogenous; Spending-driven)
Change in Liabilities (including retroactive changes):
    1951Q1 +$10.5 billion (Endogenous; Spending-driven)
    1951Q2 –$7.0 billion (Endogenous; Spending-driven)
Present Value:
    1951Q1 +$3.52 billion (Endogenous; Spending-driven)

The motivation for the Excess Profits Tax Act of 1950 was the same as that for the Revenue Act of 1950. The economy was perceived to be at full employment and defense expenditures were rising because of the Korean War. Taxes were raised to keep growth from going above normal. The *Midyear Economic Report of the President* for 1950 stated: "An increase of 10 billion dollars in military appropriations, coming at a time when our economy is already operating at near-maximum levels, will greatly increase demand for goods and for labor, thus putting pressure on our price and wage structure" (p. 46). It went on to say that it was important "to use fiscal and credit policies to the fullest extent feasible for the restraint of inflationary pressures" (p. 46). Truman reiterated this view at the signing ceremony, saying "we are determined to finance the defense program without jeopardy to the stability of our economic system" (Statement by the President Upon Signing the Excess Profits Tax Act of 1950, 1/3/51, p. 1).

The Senate report on the bill indicated a similar motivation. It stated: "This bill is a second step in the financing of the vastly expanded military program resulting from the hostilities in Korea and the critical international situation" (81st Congress, 2d Session, Senate Report No. 2679, 12/18/50, p. 1). The report made it clear that the tax increase was motivated by a desire to prevent the budget deficit from rising (p. 2).

Because the tax increase was designed to offset the effects of spending increases, and thus keep growth at normal, we classify it as an endogenous, spending-driven action.

The *Economic Reports* do not provide a precise figure for the revenue effects of the act. The *Midyear Economic Report of the President* for 1951 stated that the two 1950 tax increases raised revenues

at current income levels at an annual rate of $9 to $10 billion (p. 128), suggesting a revenue effect of roughly $5 billion for the excess profits tax. The 1951 Treasury *Annual Report* gave the figure at $3.5 billion (p. 44). Given that the Treasury's number is more precise, we use that as the basis for our revenue estimate.

The tax was made retroactive to July 1, 1950 (1951 Treasury *Annual Report*, p. 47). Thus, it is as though there was a tax increase of 3 · $3.5 billion, or $10.5 billion, at an annual rate in 1951Q1. Since the tax change resulted in a steady-state revenue increase of $3.5 billion, this implies a tax cut of $ 7 billion in 1951Q2. Without the retroactive feature, the revenue effect would be an increase of $3.5 billion in 1951Q1.

The act placed a 2 percent surtax on corporate income and a 30 percent tax on excess profits. Excess profits were calculated as the difference between actual income and average income for three of the four years 1946 to 1949. The tax was explicitly temporary: it was scheduled to terminate as of June 30, 1953 (Summary of H. R. 9827 "The Excess Profits Tax Act of 1950" As Agreed to by the Conferees, 12/50, p. 2). The tax, however, was extended to December 31, 1953 by Public Law 125, signed 7/16/53 (1953 Treasury *Annual Report*, p. 52).

Revenue Act of 1951

Signed: 10/20/51
Change in Liabilities (excluding retroactive changes):
    1951Q4 +$5.4 billion (Endogenous; Spending-driven)
Change in Liabilities (including retroactive changes):
    1951Q4 +$10.0 billion (Endogenous; Spending-driven)
    1952Q1 –$4.6 billion (Endogenous; Spending-driven)
Present Value:
    1951Q4 +$5.42 billion (Endogenous; Spending-driven)

The motivation for the Revenue Act of 1951 was again the increase in spending related to the Korean War. The 1951 *Economic Report* stated: "These new taxes are required to finance the defense effort; and to help keep total spending within the capacity of current production, so that inflation does not reduce the purchasing power" (p. 17). This same sentiment was echoed in a number of presidential speeches. On February 2, 1951, Truman said, "If we do not tax ourselves enough to pay for defense expenditures, the Government will … add to total purchasing power and inflationary pressures" (Special Message to the Congress Recommending a "Pay as We Go" Tax Program, p. 2). These quotations make it clear that the tax increase was designed to keep growth normal.

The House report on the bill emphasized that the tax increase was explicitly to pay for the Korean War. It stated: "The military action in Korea, coupled with the general threat to world peace, has made it necessary to provide extraordinary increases in revenues to meet essential national defense expenditures" (82d Congress, 1st Session, House of Representatives Report No. 586, 6/18/51, p. 1). It also stressed the temporary nature of the tax, saying: "The 12½-percent flat across-the-board increase [in individual income tax rates] was selected as the form of increase, since it is not intended that this increase will be permanent, and therefore, it was desired to provide an increase which would not become an integral part of the rate structure" (p. 8).

Because the tax increase was designed to counteract the effects of higher military spending and thereby keep growth normal, we classify it as an endogenous, spending-driven action.

Truman's speech upon signing the bill stated that it would raise about $5.5 billion of additional revenues at an annual rate (Statement by the President Upon Signing the Revenue Act of 1951, 10/20/51, p. 1). Both the 1952 *Economic Report* (p. 135) and the 1951 Treasury *Annual Report* (p. 44) gave the figure as $5.4 billion. We follow our usual practice and use the number from the *Economic Report*.

The increase in corporate taxes was retroactive to April 1, 1951, while the remainder took effect

on November 1, 1951 (1951 Treasury *Annual Report*, p. 51). Because the action took place before the middle of the quarter, we date the tax increase in 1951Q4. Approximately $2.3 billion of the tax increase was from corporate taxes (p. 501). Therefore, the retroactive portion of the bill increased taxes at an annual rate of $2.3 billion · 2 extra quarters, or $4.6 billion. Adding this to the steady-state effect of $5.4 billion yields a tax increase of $10 billion in 1951Q4. The return to the steady-state level of tax increase implies a tax cut of $4.6 billion in 1952Q1. If one ignored the retroactive part of the legislation, there would be just a tax increase of $5.4 billion in 1951Q4.

The tax increase largely took the form of an increase in marginal rates. The act also raised the capital gains tax, the tax on corporate profits, and some excise taxes (1951 Treasury *Annual Report*, pp. 50-52). Most of the changes were explicitly temporary. The individual income tax increases were legislated to expire on January 1, 1954; the corporate and excise tax increases were to continue until March 31, 1954 (1951 Treasury *Annual Report*, pp. 51-52).

<u>Expiration of Excess Profits Tax and of Temporary Income Tax Increases</u>

Effective: 1/1/54
Change in Liabilities:

1954Q1	–$3.7 billion	(Endogenous; Spending-driven)
	–$1.3 billion	(Exogenous; Deficit-driven)

Present Value:

1954Q1	–$5.0 billion	(Endogenous; Spending-driven)

Most of the provisions of the Excess Profits Tax of 1950 and the Revenue Act of 1951 were temporary. The excess profits tax, which was originally scheduled to expire on July 1, 1953, was extended until January 1, 1954 by Public Law 125. Many of the temporary taxes were then allowed to expire in January 1954. The corporate tax increases and some of the excise taxes, however, were repeatedly extended.

Ordinarily, the expiration of a temporary tax change would be included in the revenue effects of the original legislation. However, because some of the original expiration dates were extended by other legislation, we identify the expiration as a separate action. A more fundamental reason for treating the expiration as a separate action is that policymakers at the time did so. The 1953 *Economic Report*, for example, included deficit projections based on the premise that "the post-Korea tax increases are not allowed to run off as provided by present law" (p. 71). Similarly, the 1954 *Economic Report* characterized the expiration as a deliberate policy decision, stating: "The Secretary of the Treasury therefore announced in the plainest possible language that the Administration, besides relinquishing the excess-profits tax, would not seek to postpone the reduction of the personal income tax, averaging approximately 10 percent, scheduled for January 1, 1954" (p. 52). And, the fact that many of the tax actions were extended adds credibility to the notion that extension, rather than expiration, was the more plausible baseline. Therefore, it is appropriate to treat the decision to let the tax increases expire as an identifiable action.

The main reason Congress and the President allowed the reductions to occur was that there were large falls in government spending, in considerable part because of the end of the Korean War. The 1954 *Economic Report*, for example, stated, "Because of billions of dollars of savings in Government spending made in this Administration's first year, major tax cuts went into effect on January 1" (p. iv). In an address to Congress, Eisenhower stated, "These tax reductions are justified only because of the substantial reductions we already have made and are making in governmental expenditures" (Annual Message to the Congress on the State of the Union, 1/7/54, p. 6).

A secondary motivation for the reductions was concern about the health of the economy. The 1954 *Economic Report* stated, "By late September [1953] it was clear that the existing danger of inflation had passed, and that the prospective reduction of Federal expenditure would justify some tax reduction,"

and that as a result the administration announced that it would allow taxes to fall on January 1 (p. 52). The *Economic Report* went on to say, "This unequivocal promise of tax relief … bolstered confidence at a time when trade and employment were slipping slightly," and referred to the tax reductions as "well-timed" (p. 52).

Based on these considerations, this tax reduction is clearly endogenous, and the main motivation was the drop in spending. There is, however, a complication. Another reason given for allowing the tax cuts to go into effect was that a long-scheduled rise in Social Security taxes went into effect in 1954Q1 (see the discussion above of the Social Security Amendments of 1950). Discussions at the time of the size of the tax cut in early 1954 often took note of the offsetting rise in Social Security taxes (see, for example, 1954 *Economic Report*, p. 78; 1955 *Economic Report*, p. 19). This suggests that it was the net stimulus that policymakers were concerned about. Classifying a tax cut designed to counteract an exogenous tax increase as endogenous would have the nonsensical result of identifying an exogenous change in taxes, when, in reality, tax revenues did not change at all. For this reason, as a general rule, we classify tax changes to counteract exogenous tax changes as themselves exogenous (and for the same reason). As described above, the exogenous tax increase in 1954Q1 was $1.3 billion and was designed to maintain the actuarial soundness of the Social Security system. Therefore, $1.3 billion of the tax cut in 1954Q1 is classified as an exogenous, deficit-driven action as well.

The sources all give figures for the size of the total tax reduction of approximately $5 billion at an annual rate. The 1954 *Economic Report* stated that the reduction was "[m]ore than 5 billion dollars" (p. iv). Similarly, in a radio address on March 15, 1954, President Eisenhower said, "On January 1st this year your taxes were cut by five billion dollars" (Radio and Television Address to the American People on the Tax Program, p. 2). The 1954 Treasury *Annual Report* stated that the expiration of the excess profits tax reduced revenues by $2.0 billion at an annual rate, and that the reversion of individual income tax rates to those in effect before the Revenue Act of 1951 reduced annual revenues by $3.0 billion (p. 44). As discussed above, we classify $1.3 billion of this tax cut as exogenous because it was counteracting an exogenous tax increase. The remaining $3.7 billion tax cut is endogenous.

As described above in the discussion of the Social Security Amendments of 1950, when doing the present value calculation, the 1954Q1 Social Security tax increase is properly classified as spending-driven. Therefore, in doing the present value calculation for the part of the current tax cut designed counteract this tax increase, it too should be classified as spending-driven. Therefore, both tax changes associated with the expiration of the excess profits tax in 1954Q1 are spending-driven and contemporaneous with passage. Therefore, the present value of the tax change is just –$5 billion.

The tax reductions mainly took the form of lower marginal rates on individual and corporate income. The changes were permanent.

<u>Excise Tax Reduction Act of 1954</u>

Signed: 4/1/54
Change in Liabilities:
1954Q2 –$1.0 billion (Endogenous; Spending-driven)
Present Value:
1954Q2 –$1.0 billion (Endogenous; Spending-driven)

The higher excise taxes in the Revenue Act of 1951 were scheduled to expire on April 1, 1954. This bill extended some of these taxes, but allowed others to expire.

This bill was under discussion at the same time as the Internal Revenue Code of 1954 and came shortly after the tax reductions of January 1954. As a result, it is difficult to analyze its motivation in isolation. The administration supported the tax cuts of January 1954 and believed that reductions in government expenditure made further tax cuts desirable. In his Annual Budget Message to the Congress: Fiscal Year 1955, for example, Eisenhower stated, "The reductions in expenditures already accomplished,

together with those now proposed, justify the tax reductions which took effect January 1 [1954] and the further tax revisions I am recommending" (1/21/54, p. 2). In an address on the tax plan, he stated that spending had been cut by $7 billion, and went on to say, "Without these savings, there could have been no tax relief for anyone. Because of these savings, your tax cuts were possible. On January 1st this year your taxes were cut by five billion dollars. The tax revision program now in Congress will cut taxes by over one and a half billion dollars more. … Thus the Government is turning back to you about all that we expect to save this year" (Radio and Television Address to the American People on the Tax Program, 3/15/54, p. 2). This same sentiment was expressed by Republicans in Congress. In the House debate on the Excise Tax Reduction Act of 1954, Mr. Kean, representative from New Jersey, stated: "We are able to stand here and vote for a cut in some excise taxes now because the Eisenhower administration recommended economies last year" (*Congressional Record*, 83d Congress, 2d Session, Volume 100—Part 3, 3/10/54, p. 3020). This discussion makes it clear that some of the tax cuts in later 1954 were motivated by the drop in government spending, and so are endogenous by our definition.

As the quotation above suggests, the tax cut the president wished to make was that contained in the overhaul of the Internal Revenue Code. He argued in favor of extending the excise taxes (Annual Budget Message to the Congress: Fiscal Year 1955, 1/21/54, pp. 8, 15; the President's News Conference of March 31st, 1954, p. 1). Congress, however, was adamant in support of cutting the excise taxes. According to Holmans, a major reason for Congress's support of the cut was concern about the economy (1961, pp. 219-223). For example, in the House debate on the measure, Mr. Donohue, a Democrat, stated: "One of the most compelling and forceful reasons for supporting this measure, inadequate as it is, arises out of the alarming current unemployment trend throughout the country" (*Congressional Record*, 83d Congress, 2d Session, Volume 100—Part 3, 3/10/54 p. 3033). Similarly, Mr. Kean, a Republican, stated: "Enactment of this bill into law will add nearly a billion dollars a year to the spending ability of our people …. This added purchasing power in the hands of the consumer should aid in reversing the business trend" (p. 3021). The House report gave as its first reason for the bill: "The committee believes that this reduction will stimulate business and employment" (83d Congress, 2d Session, House of Representatives Report No. 1307, 3/4/54, p. 1).[9]

The president also embraced the countercyclical argument at least somewhat. For example, the 1955 *Economic Report* discussed the cuts in a paragraph devoted to "additional steps … to stimulate the economy" in response to the recession of 1953-54 (p. 20). At his news conference on March 31, 1954, Eisenhower stated of the tax cuts (including the excise tax reduction): "we have every reason to believe that it will be a stimulating factor in our economy" (p. 1).

Given that both the Administration and Congress supported some tax cut because of the decline in spending, and some in Congress clearly supported the excise tax cut as a way to counteract the recession, we classify the Excise Tax Reduction Act of 1954 as endogenous. We conclude that the primary motivation was the drop in spending.

The act was signed in early April 1954, so we date the tax change in 1954Q2. The 1955 *Economic Report* reported that the reductions lowered annual revenue by $1.0 billion (p. 20), and the 1954 Treasury *Annual Report* gave the same figure (p. 45).

The bill reduced sales taxes on a wide range of goods. The change was designed to be permanent.

Internal Revenue Code of 1954

Signed: 8/16/54
Change in Liabilities (excluding retroactive changes):
1954Q3 –$1.4 billion (Exogenous; Long-run)

[9] The report also said: "Furthermore, this change provides a more equitable tax system by leveling down those rates which are now excessively high and thus removes discrimination" (House Report No. 1307, p. 1). Thus, there may have been some exogenous motivation as well, though it was clearly secondary.

Change in Liabilities (including retroactive changes):

1954Q3	–$4.2 billion	(Exogenous; Long-run)
1954Q4	+$2.8 billion	(Exogenous; Long-run)

Present Value:

1954Q3	–$1.41 billion	(Exogenous; Long-run)

This bill was a significant change of the income tax system. It was the first comprehensive revision of the Internal Revenue Code in 75 years (Statement by the President Upon Signing Bill Revising the Internal Revenue Code, 8/16/54, p. 1).

This bill was passed primarily to increase the fairness and efficiency of the tax system. It had been under discussion since 1952 (Holmans, 1961, p. 219), well before the 1953-54 recession. At the signing ceremony, Eisenhower stressed: "It is a law which will help millions of Americans by giving them fairer tax treatment than they now receive." He also said, "economic growth will be fostered by such provisions as more flexible depreciation and better tax treatment of research and development costs, thus encouraging all business—large and small—to modernize and expand" (Statement by the President Upon Signing Bill Revising the Internal Revenue Code, 8/16/54, p. 1). The Report of the Committee on Ways and Means to Accompany H.R. 8300 (Internal Revenue Code of 1954) repeated this motivation. It stated: "In general, the purpose of these changes has been to remove inequities, to end harassment of the taxpayer and to reduce tax barriers to future expansion of production and employment" (83d Congress, 2d Session, House of Representatives Report No. 1337, 3/9/54, p. 1).

From this perspective, the reduction in revenues at a given level of income was the result of a belief that the bill would stimulate growth and of a desire to make the reform roughly revenue neutral after accounting for the growth effects. The 1954 *Economic Report* stated, "A number of additional tax measures should now be taken in order to strengthen the forces of growth in employment and production. These measures, which involve some immediate sacrifices of revenue, contain the seeds of important future revenue gains to be reaped from the economic growth they will stimulate" (p. 79). The 1955 *Economic Report* described the motivations for the bill as "to stimulate competitive enterprise, to strengthen the floor of security for the individual, and to curb tendencies toward either depression or inflation," and referred to "the loss of 1.4 billion dollars as a result of enacting structural tax changes" as almost a side effect of the reform (pp. 19-20).

The possible countercyclical benefits of the bill were certainly mentioned frequently. As discussed above, the administration favored some additional tax relief in mid-1954 because of further declines in defense spending. And, much of the Congressional debate focused on the need for additional stimulus. Indeed, several amendments were offered that involved increasing the personal exemption and cutting tax rates (Holmans, 1961, pp. 229-233). However, once the Excise Tax Reduction Act of 1954 was passed, the Administration argued strenuously against further tax cuts, especially the increase in the personal exemption. On March 15, 1954, Eisenhower said: "at this time economic conditions do not call for an emergency program that would justify larger Federal deficits and further inflation through large additional tax reductions" (Radio and Television Address to the American People on the Tax Program, 3/15/54, p. 4; see also Annual Budget Message to the Congress: Fiscal Year 1955, 1/21/54, p. 8). Also, the House report on the bill explicitly downplayed the countercyclical aspects, saying: "This bill is a long overdue reform measure which is vitally necessary regardless of the momentary economic conditions and should not be confused with other measures which may be, or might become, appropriate in the light of a particular short-run situation" (House Report No. 1337, pp. 1-2). Thus, it seems clear that at least some of the tax cuts contained in the Excise Tax Reduction Act of 1954 and the Internal Revenue Code of 1954 should be classified as exogenous. There was a cut beyond what the administration thought was justified by the decline in spending and the state of the economy.

Because the excise tax reduction came first and had no obvious other motivation, we choose to classify it as endogenous and the Internal Revenue Code of 1954 as an exogenous, long-run action. We feel this makes sense given that the Internal Revenue Code of 1954 clearly had a substantial exogenous component and indeed was passed after it was widely understood that the trough of the recession (May

1954) had been turned (Holmans, 1961, p. 233). But, at some level, which of the two tax cuts is classified as endogenous and which as exogenous is somewhat arbitrary. What is clear is that there were small cuts of both kinds in the summer of 1954.

The act was signed in mid-August 1954, so we date the initial tax change in 1954Q3. Our sources give a figure of –$1.4 billion for the revenue effects at an annual rate (for example, 1955 *Economic Report*, p. 20; 1954 Treasury *Annual Report*, p. 44). The bill was retroactive to January 1, 1954 (1954 Treasury *Annual Report*, p. 286). It thus reduced taxes by 3 · $1.4 billion, or $4.2 billion at an annual rate, in 1954Q3. The return to the steady-state reduction of $1.4 billion in 1954Q4 implies a tax increase of $2.8 billion in 1954Q4. If one chose to neglect the retroactive element, there would be just a tax cut of $1.4 billion in 1954Q3.

The changes consisted largely of the removal of obvious inequities, complications, ambiguities, and opportunities for tax avoidance, and of provisions designed to stimulate investment. All the changes were legislated to be permanent.

Social Security Amendments of 1954

Signed: 9/1/54
Change in Liabilities:
1955Q1 +$0.5 billion (Endogenous; Spending-driven)
Present Value:
1954Q3 +$0.50 billion (Endogenous; Spending-driven)

This bill increased taxes by increasing the maximum wages subject to the Social Security payroll tax. The motivation for the tax increase was an increase in Social Security spending: the bill increased the maximum wages on which benefits were computed by the same amount, and it was this increase in covered wages that was the reason for the increase in the tax base. Congress clearly viewed the wage bases for taxes and benefits as linked, and adjusted them together. For example, the House report on the bill stated: "Under the provisions of the bill, the maximum amount of covered earnings considered, for both tax and benefit purposes, would be raised from $3,600 to $4,200 a year, effective January 1, 1955" (83d Congress, 2d Session, House of Representative Report No. 1698, p. 14). The report discussed the reasons for the increase in the base in terms of how to adjust benefits to reflect the general rise in workers' earnings: "The major reason for this proposal is to maintain the principle of old-age and survivors insurance … that benefits should, within limits, vary with the individual's previous earnings. … Raising the wage base to $4,200 would restore approximately the same relationship between general earnings levels and the maximum wage base that existed in 1951" (pp. 14-15). An article in the September 1954 *Social Security Bulletin* took the same view of the increase in the base (pp. 6-7). Because the tax change was motivated by an increase in spending, we classify it as an endogenous, spending-driven action.

As with the 1951 base increase, our contemporary sources do not provide any estimates of the bill's revenue effects. We therefore follow the same procedure we use for that change. Thus, we estimate that since the change raised the tax base by one-sixth and that increases in the base affected about one-half of workers covered by Social Security, roughly one-thirteenth of Social Security revenues after the increase were due to the higher base. The 1958 *Budget* reported that in the first full fiscal year after the increase (fiscal 1956), Social Security revenues were $6.3 billion (p. 1069). We therefore estimate that the increase raised revenues by $0.5 billion.[10] Because the increase took place on January 1, 1955, we date it

[10] An alternative approach yields a very similar estimate. The September 1954 *Social Security Bulletin* reported that the increase in the base was projected to affect approximately 20 million workers in 1955 (pp. 6-7). This suggests a revenue effect of slightly less than $600 per worker times 20 million workers times the Social Security tax rate of 4 percent, or $0.48 billion.

as occurring in 1955Q1.

The amendments also provided for increases in the Social Security tax rate in 1970 and 1975. Not surprisingly, these provisions were altered by later legislation.

This tax change increased marginal rates on middle-income taxpayers. The change was intended to be permanent.

Federal-Aid Highway Act of 1956

Signed: 6/29/56
Change in Liabilities:
1956Q3 +$0.6 billion (Endogenous; Spending-driven)
Present Value:
1956Q2 +$0.60 billion (Endogenous; Spending-driven)

This bill was passed to further construction of the interstate highway system. It included an increase in taxes on motor fuels and tires to pay for the increased spending. The motivation for the tax increase was clearly to prevent an increase in the budget deficit and the possible inflation that a higher deficit could cause. The president's Annual Message to the Congress on the State of the Union for 1956 stated: "the pressing nature of this problem [inadequate highways] must not lead us to solutions outside the bounds of sound fiscal management" (1/5/56, p. 9). Similarly, the 1956 *Economic Report*, in discussing overall tax policy, stated: "To add further to our public debt …, which in the current state of high prosperity might chiefly serve to raise prices, would be irresponsible" (pp. 75-76). The *Economic Report* also drew the link between increased spending and the tax increase. In urging the legislation, it stated: "It was suggested last year that this vast road program be financed by an independent authority … and that interest and amortization on the highway debt be paid out of the excess—which may be expected to increase—of Federal revenues from present gasoline and lubricating oil taxes over current Federal grants-in-aid for roads. If this financing plan is not satisfactory to the Congress, a sound alternative not involving budget deficits should be devised" (p. 84).

The Congressional reports on the bill also drew the link between increased taxes and increased spending. The increase in taxes was originally part of a separate bill, the Highway Revenue Act of 1956. The report of the Ways and Means Committee on that bill stated: "The bill is designed to raise sufficient revenue from new and existing highway-user taxes to approximately match estimated Federal highway expenditures under H.R. 8836" (84th Congress, 2d Session, House of Representatives Report No. 1899, 3/19/56, p. 1). The spending and tax bills were merged into one bill, the Federal-Aid Highway Act of 1956 "to permit the simultaneous and orderly consideration of all aspects of the highway program" (84th Congress, 2d Session, House of Representatives Report No. 2022, 4/21/56, p. 2). According to this same report, the tax increase was designed "to make the highway program self-financing" (p. 1). Finally, the Senate report on the combined bill stated: "This expansion of the Interstate Highway System, … will permit the proposed financing to match the authorizations, and keep the financing and construction programs in balance" (84th Congress, 2d Session, Senate Report No. 1965, 5/10/56, p. 2).

Because the tax increase was motivated by an increase in spending, we classify it as an endogenous, spending-driven action.

The 1956 Treasury *Annual Report* gave a figure of $0.6 billion at an annual rate for the revenue effects of the bill (p. 45). The tax changes under the bill went into effect on July 1, 1956, so we date the tax increase in 1956Q3.

Most of the increased revenues came from a higher tax on gasoline. The tax change was legislated to be in effect until June 30, 1972.

Social Security Amendments of 1956

Signed: 8/1/56
Change in Liabilities:
1957Q1 +$0.9 billion (Endogenous; Spending-driven)
Present Value:
1956Q3 +$0.89 billion (Endogenous; Spending-driven)

This bill increased the combined Social Security tax rate from 4 to 4 ½ percent effective January 1, 1957. The motive for the increase was higher spending. The bill expanded the coverage of the Social Security system, allowed for earlier retirement, and increased Social Security spending in other ways. In keeping with the general principles about Social Security financing Congress had been following, the tax rate was increased as well. As described by the September 1956 *Social Security Bulletin*: "At the time of the 1950 amendments, as well as since then, Congress has expressed its belief that the insurance program should be completely self-supporting …. Accordingly, in the 1956 amendments, the contribution schedule contained in the 1954 act was revised in recognition of the increased benefit costs involved" (p. 9). Thus, the tax increase was clearly motivated by an increase in spending, and is therefore an endogenous, spending-driven action.

Our contemporary sources do not provide any estimates of the revenue effects of the change. However, because the change was an increase in the tax rate from 4 to 4½ percent, one-ninth of Social Security revenues after the increase would have been due to the increase. FICA revenues in fiscal 1958 were $7.7 billion (1960 *Budget*, p. 934). Thus we estimate the revenue effects of the change as an increase of $0.9 billion. The increase occurred in 1957Q1. The bill also provided for rate increases in later years. However, these provisions were changed by later legislation, and so do not enter our analysis.

The bill increased marginal tax rates on low-income taxpayers. It was legislated to be permanent.

Tax Rate Extension Act of 1958

Signed: 6/30/58
Change in Liabilities:
1958Q3 –$0.5 billion (Exogenous; Long-run)
Present Value:
1958Q2 –$0.50 billion (Exogenous; Long-run)

Despite the fact that the economy was in a recession, the 1958 *Economic Report* argued against allowing previously scheduled tax reductions to go into effect. It stated: "The prospective surplus is … insufficient to permit the reductions in the corporate income tax rate and in the excise taxes on automobiles and parts, cigarettes, distilled spirits, wines, and beer scheduled to take effect on July 1, 1958" (p. 57). Likewise, in a Letter to the President of the Senate and to the Speaker of the House of Representatives Urging Continuation of Corporation Tax Rates in May, President Eisenhower said the recommendation was made after consultation "with leaders of both political parties in the Congress" and "[c]onsideration of fiscal measures will continue to be made in the light of the developing economic situation and with full regard to both the short and long-range effects of any proposal" (5/26/58). It is clear that the administration did not feel that economic conditions justified an increase in the deficit, which was already viewed as too large.

There was more sympathy for expansionary fiscal policy in the Congress. The House report stated: "In recent months, … various types of tax reductions have been suggested as aids in overcoming the present economic recession" (85th Congress, 2d Session, House of Representatives Report No. 1839, 5/30/58, p. 4). However, the Ways and Means Committee ultimately concluded that it "has not as yet, at least, been convinced that under existing conditions a tax reduction is necessary" (p. 4). The Senate

report repeated this conclusion, but included a long supplemental view by Senator Paul Douglas saying that the recession was terrible and a general tax cut was necessary (85th Congress, 2d Session, Senate Report No. 1703, 6/12/58, pp. 9-17).

The Senate ultimately passed an amendment repealing the excise tax on the transportation of property that was included in the final bill. The debate on the amendment made it clear that the repeal was passed out of concern for fairness and as a way of helping the troubled railroad industry. It was not in any sense viewed as a general recovery measure. Senator Smathers, the sponsor of the amendment, emphasized that "the excise tax on freight transportation is a form of double taxation" because goods may have a specific excise tax as well as the transportation tax (*Congressional Record*, 85th Congress, 2d Session, Volume 104—Part 9, 6/19/58, p.11717). Several senators mentioned the long-run problems of the railroad industry as the key motivation. Senator Magnuson, Chairman of the Committee on Interstate and Foreign Commerce stated: "This amendment really is an amendment for the relief of railroads" (p. 11732). Senator Symington discussed the dramatic decline in the railroad industry since 1947 and said that the removal of the excise tax on transportation would "contribute to the financial recovery of the 'million-man' railroad industry" (p. 11722).

Because the tax cut was passed to aid one particular industry, and because both the administration and Congress agreed that conditions did not warrant fiscal expansion, we classify it as exogenous. It falls into the catchall category of an exogenous action for long-run growth purposes.

The bill was signed at the end of the second quarter, so we date the tax cut in 1958Q3. According to both the 1959 *Economic Report* (p. 116) and the 1958 Treasury *Annual Report* (p. 42), the cuts reduced revenues by $0.5 billion annually.

The cuts were on taxes on the transportation of oil, coal, and other goods. The tax changes were legislated to be permanent.

<u>Social Security Amendments of 1958</u>

Signed: 8/28/58
Change in Liabilities:

1959Q1	+$1.1 billion	(Endogenous; Spending-driven)
1960Q1	+$1.9 billion	(Exogenous; Deficit-driven)

Present Value:

1958Q3	+$2.90 billion	(Endogenous; Spending-driven)

These amendments to the Social Security Act increased the tax base for Social Security from $4200 to $4800 on January 1, 1959, increased the combined Social Security tax rate from 4 ½ percent to 5 percent on January 1, 1959, and increased it further to 6 percent on January 1, 1960. (The amendments also provided for some additional rate increases that were superceded by later legislation.) The tax increases were motivated by the increase in benefits that also occurred on January 1, 1959, and by a deterioration of the Social Security system's long-term financial situation that had occurred over the previous few years. The *Social Security Bulletin* for October 1958 reported:

> Estimates prepared early in 1958 indicated that outgo of the [trust] fund would exceed income during most, if not all, years until 1965. At the same time, revised long-range cost estimates indicated that there was an actuarial insufficiency of 0.57 percent of payroll for the old-age and survivors insurance aspects of the program.
>
> Faced with this situation, Congress reaffirmed its conviction that liberalizations in benefit provisions should be fully financed by appropriate changes in the tax schedule and further decided that the actuarial status of the program should be improved (p. 11).

Similarly, in his statement signing the bill, President Eisenhower said: "The increase in social security

contribution rates and the accelerated tax schedule in the bill will further strengthen the financial condition of this system in the years immediately ahead and over the long-term future. It is, of course, essential that the old-age, survivors, and disability insurance program … remain financially sound and self-supporting" (Statement by the President Upon Signing the Social Security Amendments, 8/29/58, p. 1).

Because the 1959 tax increase was intended to finance a contemporaneous rise in spending, it is an endogenous, spending-driven change. The 1960 increase, on the other hand, occurred a full year after the associated increase in spending. Thus, the dynamics of the economy after this increase are likely to have reflected largely the effects of the tax change alone, and not the earlier spending change. Following our usual rule for delayed tax changes, we therefore classify the 1960 increase as an exogenous, deficit-driven action.

The changes were expected to increase revenues by $1.1 billion in calendar year 1959 (*Social Security Bulletin*, October 1958, p. 19). We therefore identify an endogenous tax increase of $1.1 billion in 1959Q1. Contemporary sources do not provide estimates of the revenue effects of the 1960 increase. But since it raised the tax rate from 5 percent to 6 percent, we can estimate its revenue effect as one-sixth of FICA revenues after it took effect. Since these revenues in the first full fiscal year after the increase, fiscal 1961, were $11.6 billion (1963 *Budget*, p. 50), we estimate the revenue effect as an increase of $1.9 billion. The increase occurred in 1960Q1.

When using the present value measure, it is appropriate to reclassify the tax change in 1960Q1 as an endogenous, spending-driven change. This change is classified as deficit-driven when we use the change in liabilities as the revenue measure because it occurs more than a year after the spending change that motivated it. But in a framework emphasizing news, the future tax change should be treated as spending-driven.

The changes raised marginal tax rates on low- and middle-income taxpayers. The changes were expected to be permanent.

<u>Federal-Aid Highway Act of 1959</u>

Signed: 9/21/59
Change in Liabilities:
1959Q4 +$0.6 billion (Exogenous; Deficit-driven)
Present Value:
1959Q3 +$0.59 billion (Exogenous; Deficit-driven)

In April 1958, in response to the recession, Congress approved legislation increasing aid to the states for highway construction. The Federal-Aid Highway Act of 1959 increased the tax on gasoline, effective October 1, 1959. This tax increase was passed to restore the Highway Trust Fund to solvency and, therefore, allow continued spending at the same rate. According to the Statement by the President Upon Signing the Federal-Aid Highway Act of 1959, the tax increase was "for the purpose of keeping the Federal-aid highway program on schedule and continuing the self-sustaining features of the program" (9/21/59). The same motivation is mentioned in both the 1959 *Economic Report* (p. 50) and the 1960 *Economic Report* (p. 49). In a series of messages to Congress, Eisenhower emphasized his support for the pay-as-you-go principle of the original interstate highway legislation and said that the tax increase was necessary to prevent a decline in spending on highway construction (Special Message to the Congress Urging Timely Action Regarding the Highway Trust Fund, Housing, and Wheat, 5/13/59, p. 1; Statement by the President on the Financing of the Interstate Highway System, 6/25/59; and Special Message to the Congress Urging Timely Action on FHA Mortgage Loan Insurance and on the Interstate Highway Program, 8/25/59).

The House report on the tax increase gave a very similar justification. It explained that there was a short-term financing problem because of the additional spending in 1958, and a long-term financing

problem related to rising costs. It stated: "The Committee on Ways and Means … decided that for this year and next it was necessary to provide new revenues to meet the highway trust fund deficit since a diversion of revenues from the general fund could well lead to unbalanced budgets in this period" (86th Congress, 1st Session, House of Representatives Report No. 1120, 9/1/59, p. 18). The purpose of the revenue increase was to keep the trust fund solvent and so allow spending to continue at the previously authorized rate (p. 16).

Because this tax increase appears to have been for largely technical, deficit-reduction purposes, we classify it as an exogenous, deficit-driven action. However, it is important to note that the classification is somewhat more ambiguous than usual. First, the tax increase was loosely tied to the increase in spending in mid-1958. But, because the tax increase occurred more than a year after the increase in spending, our general rule says that it should be viewed as exogenous. Second, the administration was clearly concerned about inflation in 1959. The 1959 *Economic Report*, in a section on "A Program for Economic Growth with Price Stability," stated: "The principal means by which Government can express leadership in the effort to preserve price stability is to conduct its own financial affairs prudently" (p. 49). The gas tax increase was mentioned as part of the prudent financial plan (p. 50). However, because even in this section restoring the trust fund is the only specific motivation given, we feel any endogenous motives were clearly secondary.

The bill was signed in late September, so we date the tax change in 1959Q4. The 1959 Treasury *Annual Report* estimated that the bill would increase revenue by $0.575 billion at an annual rate (p. 43).

The tax increase took the form of a rise in the excise tax on gasoline of 1 cent per gallon. The tax increase was explicitly temporary; it was scheduled to expire June 20, 1961.

<u>Social Security Amendments of 1961</u>

Signed: 6/30/61
Change in Liabilities:
1962Q1 +$0.4 billion (Endogenous; Spending-driven)
1963Q1 +$2.0 billion (Exogenous; Deficit-driven)
Present Value:
1961Q2 +$2.28 billion (Endogenous; Spending-driven)

This bill increased the combined Social Security tax rate from 6 percent to 6.25 percent on January 1, 1962, and to 7.25 percent on January 1, 1963. (Provisions calling for additional tax increases were changed by later legislation.) The motivation for the tax increases was a set of provisions in the bill that increased Social Security spending. As described in the September 1961 *Social Security Bulletin*: "In making the changes in old-age, survivors, and disability insurance, Congress has shown its customary concern for the financial soundness of the insurance program. Since the amendments increase the level-premium cost of the program by 0.27 percent of payroll, and since they provide for additional income to the trust funds that is also estimated at 0.27 percent of payroll, the actuarial balance of the program is not changed and the system remains on a sound financial basis" (p. 8).

Almost all of the spending provisions went into effect in August 1961 (*Social Security Bulletin*, September 1961, p. 3). The tax increase in January 1962 was thus intended to pay for an approximately contemporaneous increase in spending, and so is an endogenous, spending-driven change. The 1963 increase, however, occurred well over a year after the increase in spending. Following our usual rule for tax changes that occur more than a year after the spending change they are associated with, we classify it as an exogenous, deficit-driven action.

The September 1961 *Social Security Bulletin* reported that the bill would increase revenues in 1962 by approximately $0.4 billion (p. 17). Since the only provision of the bill that affected revenue in 1962 was the tax increase on January 1, we use this figure as our estimate of the revenue effect of that increase. The increase occurred in 1962Q1.

Contemporary sources do not provide an estimate of the revenue effects of the 1963 increase. We therefore follow our usual procedure for estimating revenue effects in such cases. Here, since the bill increased the Social Security tax rate from 6.25 percent to 7.25 percent, 1/7.25 of Social Security tax revenues after the increase were due to the change. FICA revenues in fiscal 1964 (the first full fiscal year after the change) were $14.8 billion (1966 *Budget*, p. 61). Thus we estimate that there was a tax increase of $2.0 billion in 1963Q1. Since the increase in 1963 is four times as large as the increase in 1962, this estimate is similar to what one would obtain by simply scaling up the estimate for the 1962 increase.

When using the present value measure, it is appropriate to reclassify the tax change in 1963Q1 as an endogenous, spending-driven change. This change is classified as deficit-driven when we use the change in liabilities as the revenue measure because it occurs more than a year after the spending change that motivated it. But in a framework emphasizing news, the future tax change should be treated as spending-driven.

The act increased marginal tax rates on low-income taxpayers. The increases were intended to be permanent.

Changes in Depreciation Guidelines and Revenue Act of 1962

Date: Changes in depreciation guidelines announced 7/11/62; Revenue Act signed 10/16/62
Change in Liabilities (excluding retroactive changes):
1962Q3 –$1.35 billion (Exogenous; Long-run)
1962Q4 –$0.9 billion (Exogenous; Long-run)
1963Q1 +$0.6 billion (Exogenous; Long-run)
Change in Liabilities (including retroactive changes):
1962Q3 –$4.05 billion (Exogenous; Long-run)
1962Q4 –$0.9 billion (Exogenous; Long-run)
1963Q1 +$3.3 billion (Exogenous; Long-run)
Present Value:
1962Q3 –$1.70 billion (Exogenous; Long-run)

The changes in depreciation guidelines increased the rate at which firms would write-off plant and equipment and so reduced corporate profit tax liabilities. The centerpiece of the Revenue Act of 1962 was an investment tax credit. These two tax changes were typically discussed as a pair and their revenue effects were generally presented jointly. For this reason, we too treat them as a single tax change.

The motivation for the tax cut was a desire to increase the long-run rate of growth. The administration was very explicit that the economy had recovered from the 1960-61 recession by the summer of 1962. In his Radio and Television Report to the American People on the State of the National Economy, President Kennedy stated: "When I came into office in January 1961 this country was in a recession. We have made a recovery from that recession" (8/13/62, p. 1). Though the president did talk about the output gap and involuntary unemployment, it is clear that his complaint was with the level of potential output and the normal rate of economic growth, not with current economic conditions. He stated: "And now we must be concerned with the forward movement of our economy. The level of our economy … is high but, considering all the resources which this country has, it should be higher" (p. 2).

The president went on to say that the tax changes were necessary to raise normal growth. He described the investment tax credit and the new depreciation guidelines as "measures which I think would speed up our economy, which are designed to give us more jobs and more growth" (8/13/62, p. 3). The *Economic Reports* for 1962 and 1963 sound a similar theme. The 1962 *Economic Report* stated that the tax credit "will stimulate investment in capacity expansion and modernization, contribute to the growth of our productivity and output, and increase the competitiveness of American exports in world markets" (p. 26). The 1963 *Economic Report* said the tax changes would "help to stimulate the investment needed for sustained expansion and longer-run growth" (p. 18).

The House report gave a very similar reason for the tax cut. Indeed, at one point it simply quoted a long passage from the 1962 *Economic Report* (87th Congress, 2d Session, House of Representatives Report No. 1447, 3/16/62, p. 7). The Committee said: "the investment credit … is designed to provide a stimulant to the economic growth of this country. This is needed both to improve our competitive position abroad and in the long run to raise our standard of living at home. On the other hand, the other provisions of this bill are designed to improve the equity of our tax structure" (p. 1). In another section, it stated: "the investment credit, coupled with the liberalized depreciation, will provide a strong and lasting stimulus to a high rate of economic growth" (p. 8).

Because the tax changes were designed to raise normal growth, not return growth to its normal, historical average, we classify them as exogenous, long-run actions.

The revenue effects of these changes are somewhat complicated. Both the 1963 Treasury *Annual Report* (p. XXI) and the president (Remarks at the National Conference of the Business Committee for Tax Reduction in 1963, 9/10/63, p. 1) gave a figure of $2.25 billion at an annual rate for the combined effects of the depreciation changes and the investment tax credit; other sources gave similar figures (1963 *Economic Report*, p. 18; 1962 Treasury *Annual Report*, pp. 68-69). The Revenue Act also included some provisions increasing revenues. Some of these provisions were aimed at improving compliance. Since estimating the revenue effects of this type of change is extremely difficult (and easy to manipulate), we do not include projected revenues from this source. The other revenue-increasing provisions in the bill were expected to raise tax receipts $0.6 billion at an annual rate (1962 Treasury *Annual Report*, pp. 62-68). Thus there was an overall tax reduction of $1.65 billion at an annual rate.

The changes were not implemented all at once. The changes in depreciation guidelines were announced in July 1962, and were retroactive to January 1. The depreciation changes accounted for about 60 percent of the $2.25 billion of tax cuts (1962 Treasury *Annual Report*, pp. 68-69). Thus in the third quarter, firms received a tax cut (at an annual rate) of three times 60 percent of $2.25 billion, or $4.05 billion. In the fourth quarter, the changed depreciation guidelines lowered taxes only by 60 percent of $2.25 billion at an annual rate. As a result, taxes related to the change in depreciation guidelines were $2.7 billion higher at an annual rate than in the third quarter. The investment tax credit was enacted in the fourth quarter, and was also retroactive to January 1. Thus, this corresponds to a tax cut of four times 40 percent of $2.25 billion, or $3.6 billion. Therefore, the net tax cut in 1962Q4 was $3.6 billion minus $2.7 billion, or $0.9 billion. In 1963Q1 the ITC effects reverted to their steady-state level of 40 percent of $2.25 billion, or $0.9 billion. Therefore, there was a tax increase related to the end of the retroactive portion of the ITC of $3.6 billion minus $0.9 billion, or $2.7 billion in 1963Q1. Finally, the revenue-increasing provisions appear to have become effective at the beginning of 1963, corresponding to a tax increase of $0.6 billion in 1963Q1. So, the total tax increase in 1963Q1 is $2.7 billion plus $0.6 billion, or $3.3 billion. Note, if one neglected the retroactive aspects of the changes, the revenue effects would be: –$1.35 billion in 1962Q3, –$0.9 billion in 1962Q4, and +$0.6 billion in 1963Q1.

In calculating the present value of the tax change, we date the action in 1962Q3, when the first measure was put into place. We do this for two reasons. First, most of the revenue estimates combine the two measures, so it is impossible to separate the two actions. Second, it is likely that the news about the combined tax change occurred primarily when the first measure was enacted.

These actions reduced corporate taxes and increased incentives for investment. The tax changes were legislated to be permanent.

<u>Revenue Act of 1964</u>

Signed: 2/26/64
Change in Liabilities (excluding retroactive changes):

1964Q2	–$8.4 billion	(Exogenous; Long-run)
1965Q1	–$4.5 billion	(Exogenous; Long-run)

Change in Liabilities (including retroactive changes):

1964Q2	–$16.8 billion	(Exogenous; Long-run)
1964Q3	+$8.4 billion	(Exogenous; Long-run)
1965Q1	–$4.5 billion	(Exogenous; Long-run)

Present Value:

1964Q1	–$12.72 billion	(Exogenous; Long-run)

The motivation for the 1964 tax cut was the same as for the 1962 investment tax credit: faster long-run growth. Once again, there was no fear of a recession at the time the act was proposed or passed. The Revenue Act of 1964 was first proposed in the summer of 1962. President Kennedy, in his Radio and Television Report to the American People on the State of the National Economy, stated explicitly that the tax cut was not for countercyclical reasons: "Let me emphasize, however, that I have not been talking about a different kind of tax cut, a quick, temporary tax cut, to prevent a new recession" (8/13/62, p. 5). This view was repeated in two speeches in January 1963 (Annual Message to the Congress on the State of the Union, 1/14/63, pp. 1-2; Special Message to the Congress on Tax Reduction and Reform, 1/24/63, p. 1). Likewise, the 1963 *Economic Report* stated: "We approach the issue of tax revision, not in an atmosphere of haste and panic brought on by recession or depression, but in a period of comparative calm" (p. xiii). The *Economic Report* mentioned the possible countercyclical benefits of the tax cut, but made it clear that they were a sidelight. It stated: "While the basic purpose of my tax program is to meet our longer run economic challenges, we should not forget its role in strengthening our defenses against recession" (p. xxi). A similar statement was made in the 1964 *Economic Report* (p. 8). If anything, the economy was even stronger by the time the act was passed. President Johnson, in his Annual Budget Message to the Congress, Fiscal Year 1965, cited statistics showing solid economic growth and emphasized: "This is a record of strong expansion" (1/21/64, p. 3).

Kennedy and Johnson both gave as the rationale for the tax cut the need to eliminate fiscal drag so the economy could grow faster. In his August 1962 address, President Kennedy said: "our present tax system is a drag on economic recovery and economic growth," and "this administration intends to cut taxes in order to build the fundamental strength of our economy, to remove a serious barrier to long-term growth" (Radio and Television Report to the American People on the State of the National Economy, 8/13/62, p. 4). In his Special Message to the Congress on Tax Reduction and Reform, Kennedy stated: "the largest single barrier to full employment of our manpower and resources and to a higher rate of economic growth is the unrealistically heavy drag of Federal income taxes on private purchasing power, initiative and incentive" (1/24/63, p. 1). Johnson reiterated this view (Annual Budget Message to the Congress, Fiscal Year 1965, 1/21/64, p. 3). Both administrations argued that the tax cut would stimulate economic growth. For example, the 1964 *Economic Report* stated: "The tax cut will give a sustained lift, year-in and year-out, to the American economy" (p. 8).

As with the 1962 tax cut, there was much discussion of an output gap and less-than-full employment. But, it is clear that performance was not perceived as low relative to normal, only low relative to ideal. For example, Kennedy stated in his Annual Message to the Congress on the State of the Union: "America has enjoyed 22 months of uninterrupted economic recovery. But recovery is not enough. If we are to prevail in the long run, we must expand the long-run strength of our economy. We must move along the path to a higher rate of growth and full employment" (1/14/63, pp. 1-2). Johnson sounded a similar theme in January 1964. He stated: "despite the creation of 2 1/2 million new jobs in our economy, the unemployment rate now stands at 5 1/2 %. Our factories continue to produce below their optimum rate. As a nation we are producing at a rate at least $30 billion below our comfortable capacity" (Annual Budget Message to the Congress, Fiscal Year 1965, 1/21/64, p. 3).

The discussion of the reason for the tax cut given in Congressional documents parallels those in administration sources. The House report on the 1963 version of the bill stated: "The principal purpose of the revenue bill of 1963 is to remove from the private sector of the American economy its present high-tax straitjacket; that is, to lessen restraints which prevent the American free-enterprise system from itself generating necessary growth. A purpose of this bill also is to improve the equity of the tax laws" (88th

Congress, 1st Session, House of Representatives Report No. 749, 9/13/63, p. 6). The Senate report also stressed the motivation of improving incentives and equity: "The bill will cut back on excessive tax rates which unnecessarily restrain individual and business incentives, it will provide the increased consumer and business purchasing power to assure continued expansion, and it will improve the equity of the tax system" (88th Congress, 2d Session, Senate Report No. 830, 1/28/64, p. 1).

Like the administration sources, both Congressional reports mention the need to reduce unemployment as an important motivation. However, it is clear that the desire was to reduce unemployment below its historical norm. The Senate report stated: "Despite the fact that business conditions have been improving over the past 33 months, unemployment still is at the high rate of 5.5 percent" (Senate Report No. 830, p. 6). It also noted: "we have experienced a succession of disappointing recoveries in which the unemployment rate has remained disturbingly high; this rate, in fact, has not been below 5 percent since 1957" (p. 6). It concluded that "the growth rate of our economy must be increased if the requisite jobs are to be found for this expanding labor force" (p. 6). The House report was even more explicit that the motivation of the bill was to provide supranormal growth. It stated: "Maintaining the 3-percent rate of growth as the United States has done since 1956, not only will fail to eliminate the present excessive unemployment, but unemployment will continue to rise as the increasing numbers of children born during the war and early postwar years reach employment age" (House Report No. 749, p. 10).

Because the Revenue Act of 1964 was motivated by a desire for faster-than-normal growth, and not by concern about current cyclical conditions, we classify it as an exogenous, long-run change.

The legislation cut taxes in two stages. The cut in 1964, which was passed in late February, was made retroactive to January 1, 1964. There was an additional cut in January 1965. Around the time the bill was passed, the revenue effects were generally reported as a decline of $7.7 billion in 1964 and $11.5 billion in 1965 (for example, 1963 Treasury *Annual Report*, pp. XVII, XXIII; Radio and Television Remarks Upon Signing the Tax Bill, 2/26/64, p. 1; and 1964 *Economic Report*, p. 8). However, these calculations were performed at 1963 income levels (1963 Treasury *Annual Report*, p. XXIII). The 1965 *Economic Report* reported the effects in 1964 at expected 1964 income levels as $8.4 billion (p. 65). We use this figure as our estimate of the tax cut in 1964.

Both the 1965 *Economic Report* (p. 65) and the President's 1966 Budget Message (Annual Budget Message to the Congress, Fiscal Year 1966, 1/25/65, p. 4) reported that the full cut would reduce revenues in 1965 by $14 billion. The 1965 Treasury *Annual Report* gave the figure of $13.7 billion, and made it clear that this was at expected 1965 income levels (pp. 275, 294). Some of the additional revenue loss in 1965 compared with 1964, however, reflected not the additional cuts in 1965, but a greater effect of the initial cuts because of rising incomes. It appears that the effect of a given set of tax cuts was expected to increase by about 9 percent per year. For example, the estimated effect of the 1964 cuts was 8.7 percent greater at 1964 incomes than at 1963 incomes, and the estimated effect of the overall cut was 17.5 percent higher at 1965 incomes than at 1963 incomes (percentage changes are computed as changes in logs, and $13.7 billion is used for the effect of the overall cut at 1965 incomes). This is consistent with 6 percent annual nominal GNP growth (1966 *Budget*, p. 50) and an elasticity of the revenue loss with respect to nominal GNP of about 1.5. We therefore estimate that in the absence of the second round of tax cuts, the 1964 reductions would have lowered revenue in 1965 by 9 percent more than $8.4 billion, or $9.2 billion. Thus our estimate of the effect of the additional cuts at the beginning of 1965 is a revenue reduction of $13.7 billion minus $9.2 billion, or $4.5 billion.

This estimate is broadly consistent with the statement in the 1965 *Economic Report* that the 1965 cuts would lower individual income taxes by $3 billion and corporate income taxes by $1 billion (p. 10). It is also consistent with the fact that two-thirds of the reduction in individual income tax rates—which were by far the largest part of the tax cut—occurred in 1964 and one-third in 1965 (1964 Treasury *Annual Report*, p. 243).

The tax cut was signed more than halfway through the first quarter of 1964. Therefore, following our usual procedure, we assign the first stage of the cut to 1964Q2. Because the tax cut was retroactive to January 1, 1964, our usual procedures identify a tax cut (at an annual rate) of $8.4 billion plus ¼ ($8.4

billion) · 4, or \$16.8 billion, in 1964Q2. The retroactive part then disappeared in 1964Q3. Thus, there was an exogenous tax increase of \$8.4 billion in that quarter. We then identify a second exogenous tax cut of \$4.4 billion in 1965Q1. Note, if one chose to ignore the retroactive nature of the tax cut, the revenue estimates would be: –\$8.4 billion in 1964Q2 and –\$4.5 billion in 1965Q1.

The Revenue Act of 1964 lowered marginal tax rates from the previous range of 20-91% to 14-70%. It also lowered corporate tax rates, with the largest reduction being for small businesses (Annual Budget Message to the Congress, Fiscal Year 1965, 1/21/64, pp. 3-4). The tax decrease was permanent.

Excise Tax Reduction Act of 1965

Signed: 6/21/65
Change in Liabilities:
1965Q3 –\$1.75 billion (Exogenous; Long-run)
1966Q1 –\$1.75 billion (Exogenous; Long-run)
Present Value:
1965Q2 –\$3.43 billion (Exogenous; Long-run)

The Excise Tax Reduction Act of 1965 was passed primarily to increase efficiency and fairness, and to stimulate long-run growth. In his Remarks Upon Announcing Plans to Recommend a Reduction in Excise Taxes, President Johnson stated: "This reduction will spur the continued growth of our economy …. It will lower prices. It will raise business profits. It will create new jobs. It will end an unfair burden on many businesses and many workers. It will cut the Government's costs of tax collection and enforcements. It will reduce the burden of regressive taxation on low and moderate income families" (5/15/65, p. 1). A similar laundry list of benefits is given in the 1965 *Economic Report* (p. 99). That the act was motivated by a desire to increase long-run growth was also shown in the President's Special Message to the Congress Recommending Reduction of Excise Taxes and Increases in User Charges. Johnson stated: "We must continually adjust our tax system to assure that it makes a maximum contribution to our economic growth" (5/17/65, p. 1).

At the time the law was proposed, the economy was clearly doing well. In his Annual Budget Message to the Congress, Fiscal Year 1966, President Johnson discussed the "creditable record of achievement" (1/25/65, p. 2). Indeed, one argument given for making the tax cut larger was that tax revenues were larger than anticipated because of the expanding economy (Remarks Upon Announcing Plans to Recommend a Reduction in Excise Taxes, 5/15/65, p. 1). However, the president did not express confidence that future growth would be as rapid without the tax cut. In particular, he discussed the potential pitfall of fiscal drag, stating: "But as we look ahead to 1966, we must be alert to the possibility that our taxes will take too much buying power out of the private economy" (Special Message to the Congress Recommending Reduction of Excise Taxes and Increases in User Charges, 5/17/65, p. 2). While there was no sign the president was worried about below normal growth, it is plausible that he felt growth would be relatively normal in the absence of additional stimulus.

The House report on the excise tax reduction stressed efficiency and fairness as the key motives for the bill. It stated: "The elimination … of all other excise taxes … will improve the fairness of the tax system and substantially simplify the administration of the tax law, as well as contribute to the economic well-being of the Nation" (89th Congress, 1st Session, House of Representatives Report No. 433, 5/28/65, p. 9). It also mentioned that "these excises also now are objectionable in that they are generally regressive in their impact" (p. 10). Possible countercyclical motives were given only passing mention late in the report and were clearly of secondary importance. The House report merely stated: "The \$1.75 billion tax reduction provided by this bill effective this July 1 will help to insure that the growth in the rate of economic activity does not fall short of growth in the size of the productive capacity of the Nation, and in the size of the labor force" (p. 12).

Because the excise tax cut was designed to raise long-run growth, as well as to improve the

efficiency and fairness of the tax system, we classify it as an exogenous, long-run action.

The Excise Tax Reduction Act cut taxes in a series of steps. The first cut went into effect immediately upon passage in late June 1965, so we date it in 1965Q3. A second cut went into effect on January 1, 1966, so we date it 1966Q1. The original act also called for some further reductions in 1967 to 1970, but these cuts never took place and so do not enter our analysis.

The 1966 *Economic Report* stated that the revenue effects of both the June 1965 and the January 1966 excise tax cuts were $ 1.75 billion at an annual rate (pp. 52-53). Similar estimates were given in Johnson's Remarks Upon Announcing Plans to Recommend a Reduction in Excise Taxes (5/15/65, p. 1). The 1965 Treasury *Annual Report* gave revenue estimates of $1.758 billion for the cut on 6/22/65 and 1.652 billion for the cut on 1/1/66 (pp. 41-42). Since these numbers are virtually identical to those in the *Economic Report*, we follow our usual practice of using the *Economic Report* numbers. Several sources refer to a rise in user fees that would counteract some of the excise tax cut (Special Message to the Congress, 5/17/65, p. 4, 1965 *Economic Report*, p. 10). However, the 1965 Treasury *Annual Report* said that these were not included in the final bill (p. 37-38).

The nature of the tax cut was obviously a reduction in the excise tax on a number of consumer products, including appliances, sporting goods, and automobiles. The change was designed to be permanent.

Social Security Amendments of 1965

Signed: 7/30/65
Change in Liabilities:

1966Q1	+$6.0 billion	(Endogenous; Spending-driven)
1967Q1	+$1.5 billion	(Endogenous; Spending-driven)

Present Value:

1965Q3	+$7.29 billion	(Endogenous; Spending-driven)

This act increased Social Security benefits retroactively to January 1, 1965, and started the Medicare program beginning in July 1966. The act called for a series of payroll tax increases to pay for this additional spending (*Social Security Bulletin*, September 1965, pp. 9-18).

The tax increases were motivated by the increases in spending. For example, in the 1965 *Economic Report*, President Johnson urged "*a 7 percent rise in Social Security benefits* … financed by an increase next January in the covered wage base and in the combined employer and employee contribution rates," and called for "[a] hospital insurance program for the elderly, financed by contributions through social security" (p. 16, italics in the original). Similarly, in his 1966 Budget Message, the president stated, "I am recommending prompt enactment of a hospital insurance program for elderly persons …. This program should be self-financing …. I am also recommending … changes [that] will provide the funds for the needed increases being proposed in old-age, survivors, and disability insurance benefits." His proposed changes in the tax base and tax rates were similar to those ultimately enacted (Annual Budget Message to the Congress, Fiscal Year 1966, 1/25/65, p. 4).

Congress took a similar view of the tax increases. With regard to the portion of the tax linked to Medicare, the Senate Finance Committee report stated: "Just as has always been the case in connection with the old-age, survivors, and disability insurance system, the committee has very carefully considered the cost aspects of the proposed hospital insurance system. In the same manner, the committee believes that this program should be completely self-supporting from the contributions of covered individuals and employers" (89th Congress, 1st Session, Senate Report No. 404, Part I, 6/30/65, p. 57). It also said that the tax schedule had been set so that "[t]he plan would be actuarially sound under conservative cost assumptions" (p. 4). With regard to the tax increases linked to the Old-Age and Survivors Insurance and Disability Insurance programs, the report stated that the bill revised "the tax schedule and the earnings base so as to fully finance the changes made" (p. 2).

The only increases that went into effect as called for in the bill were an increase in the payroll tax rate and base on January 1, 1966, and a further increase in the tax rate on January 1, 1967. Since these changes were intended to finance roughly contemporaneous increases in spending, they are clearly endogenous, spending-driven actions.

Our sources all agree on a revenue effect of the 1966 increases of approximately $6 billion at an annual rate (1966 *Economic Report*, p. 53; 1965 Treasury *Annual Report*, p. XXI; 1966 Treasury *Annual Report*, p. XXIV). The 1967 *Economic Report* is the only source that provides an estimate for the revenue effects of the 1967 increase; it gave a figure of $1.5 billion at an annual rate (p. 62). We therefore identify endogenous tax increases of $6.0 billion in 1966Q1 and $1.5 billion in 1967Q1

The act raised marginal tax rates on low- and middle-income taxpayers. The increases were legislated as permanent.

Tax Adjustment Act of 1966

Signed: 3/15/66
Change in Liabilities:
1966Q2 +$0.9 billion (Exogenous; Long-run)
Present Value:
1966Q1 +$0.89 billion (Exogenous; Long-run)

The Excise Tax Reduction Act of 1965 included a second stage of excise tax reductions that went into effect on January 1, 1966. The Tax Adjustment Act of 1966 reinstated the December 31, 1965 level of excise taxes on automobiles and telephone service.

The motivation for restoring the excise taxes was concern that the January 1, 1966 excise tax cut, along with increases in expenditure, would result in unneeded and potentially inflationary fiscal stimulus. Both the *Economic Reports* and presidential speeches made it clear that the tax increase was to prevent overheating. For example, in his Annual Budget Message to the Congress, Fiscal Year 1967, in which he urged the excise tax reinstatement, Johnson stated: "Tax policy, however, must be used flexibly. We must be equally prepared to employ it in restraint of an overly rapid economic expansion as we were to use it as a stimulus to a lagging economy. The current situation calls for a modest measure of fiscal restraint" (1/24/66, p. 4). Similarly, the 1966 *Economic Report* stated: "The combined effect of budgeted expenditures … and tax laws now in effect would be more stimulative than now seems appropriate for the period ahead" (p. 53). It went on to say: "The aim of fiscal policies in the next 18 months is to preserve the sound expansion enjoyed in 1965—to maintain a strong and healthy prosperity; to promote a cautious movement toward lower unemployment without moving so far or so fast that bottlenecks and inflationary pressures arise" (p. 54).

The House report on the bill emphasized the need for more revenues to offset the rise in defense expenditures. It stated: "the tax adjustment bill of 1966, is designed to contribute revenues to aid in financing the increased costs of government associated with operations in Vietnam. It is designed to help finance these costs in a manner which will avoid the creation of serious inflationary pressures" (89th Congress, 2d Session, House of Representatives Report No. 1285, 2/15/66, p. 1). The Ways and Means Committee believed that the economy was at capacity and further net fiscal stimulus would cause inflation. It stated:

> It is expected that the increased tax collections that result from this bill will have a moderating influence on the expenditures of individuals and business firms. … Such a policy is appropriate in view of the near capacity levels of output and employment at which the economy is now operating. In the absence of the moderating influence of increased tax collections, the total of private demand and Government requirements would threaten to exceed the present capacity of the Nation's productive resources, and in that manner constitute a threat to price stability (pp. 6-7).

Because the tax increase was designed to prevent abnormally high growth that would otherwise have resulted from fiscal expansion, it would normally be classified as endogenous. However, as discussed in the context of the Expiration of Excess Profits Tax and of Temporary Income Tax Increases in 1954, treating a tax increase to counteract an exogenous tax cut as endogenous yields nonsensical results. Following our usual procedure, we therefore classify the Tax Adjustment Act of 1966 as an exogenous increase. The only ambiguity arises because the administration stressed both the rise in expenditure and the cut in excise taxes as motivations for the tax increase, and the Congress mentioned only the rise in defense expenditures. A tax increase to counteract increased spending would be endogenous. However, since the tax increase took the form of undoing some of the previous tax cut, we feel it is correct to treat it as primarily offsetting the excise tax cut part of the fiscal expansion, and therefore to classify it as an exogenous, long-run action. Furthermore, treating it as exogenous, and so counteracting the exogenous tax cut in 1965, has the benefit that we do not identify an exogenous tax cut at a time when government expenditure was clearly rising. Therefore, it minimizes the likelihood of overestimating the effects of tax changes.

The act was signed at the end of the first quarter of 1966, so we date the tax increase in 1966Q2. The 1966 *Economic Report* said that the reinstatement of the excise tax on automobiles and telephone service would restore $0.9 billion in revenues, at an annual rate (p. 54). The 1965 Treasury *Annual Report* gave full-year revenue effects of the scheduled reduction in the excise taxes on automobiles and telephone service occurring on January 1, 1966 of -$0.829 billion (pp. 41-42). This implies a tax increase of $0.829 billion from the repeal of this cut. Following our usual practice, we use the revenue estimate from the *Economic Report*.

The nature of the tax increase was obviously a rise in excise taxes on two specific goods—automobiles and telephone service. It was explicitly temporary. The act called for a large reduction in excise taxes on 3/31/68 and a small reduction on 1/1/69 (1965 Treasury *Annual Report*, pp. 41-42 and 1966 Treasury *Annual Report*, p. 42). Neither of these later tax cuts actually happened, however.

<u>Public Law 89-800 (Suspension of Investment Tax Credit)</u>

Signed: 11/8/66
Change in Liabilities:
  1966Q4 +$1.5 billion (Endogenous; Countercyclical)
Present Value:
  1966Q4 +$1.5 billion (Endogenous; Countercyclical)

President Johnson recommended suspension of the 7 percent investment tax credit on September 6, 1966. The primary motivation for the move was to prevent the economy from overheating. In his Special Message to the Congress on Fiscal Policy, Johnson stated: “Today the strength of the American economy exceeds all records and all expectations” (9/8/66, p. 1). He then pointed out, “Caution signs became visible early this year. Responsible fiscal policy required prudent action” (p. 2). His recommendation was that “the Congress promptly make inoperative, for a temporary period, those special incentives for plant and equipment investment and commercial construction that currently contribute to overheating the economy” (p. 1). In the Statement by the President Upon Signing Bill Suspending the Investment Tax Credit and Accelerated Depreciation Allowance, Johnson described the tax increase as “a vital part of our effort to combat inflationary pressures and to preserve the strength of our dynamic economy” (11/8/66, p. 1).

This clear countercyclical motivation is repeated in both the 1967 and 1968 *Economic Reports*. For example, the 1967 *Economic Report* stated: “As private demand and Vietnam requirements exceeded forecasts, policy was adjusted to the new developments. … In September, the President proposed additional selective fiscal measures to alleviate excessive demands for funds and for capital goods” (p. 38; see also 1968 *Economic Report*, p. 70). The 1967 *Economic Report* made it clear that the goal was

merely to keep growth at normal, not to seriously reduce it. It stated: "A healthy advance of demand in pace with the growth of potential output would permit gradual restoration of price stability. … The fiscal program for 1967 is designed to meet these objectives" (p. 38).

While the suspension of the investment tax credit was part of a general move to fiscal restraint aimed at moderating overall growth, it is clear that the action was also aimed at solving a perceived sectoral imbalance. In announcing the proposal, Johnson stated: "Our machinery and equipment industries cannot digest the demands currently thrust upon them. … Our capital markets are clogged with excessive demands for funds to finance investment. These demands bid interest rates higher and higher, and draw too large a share of credit from other important uses" (Special Message to the Congress on Fiscal Policy, 9/8/66, p. 4). This view is repeated in the 1968 *Economic Report*, which recalled that in the spring and summer of 1966, "The investment boom put severe strain on the plant capacity" and "added mightily to the pressures on financial markets" (p. 70). The *Economic Report* suggested that this was an added reason that the ITC was suspended (p. 70). Secretary of the Treasury Henry Fowler, in testimony to the Senate, made it clear that the administration's concern was that the sectoral imbalance would have more general macroeconomic effects. He stated: "The proposal [suspension of the ITC] is basically an anti-inflationary measure designed to relieve the pressures, clearly observable in the money markets and capital goods sector, which are producing unusual strains, the highest interest rates in 40 years and a perceptible trend toward a general condition of economic instability" (1967 Treasury *Annual Report*, Exhibit 32, p. 280).

Congressional documents also suggest that the suspension of the investment credit was part of a general move to restrain designed to prevent overheating. The House report stated: "H.R. 17607 is designed to moderate the pace of the economy to a more sustainable level of economic growth. This bill is an integral part of a coordinated anti-inflationary program of the administration" (89th Congress, 2^{d} session, House of Representatives Report No. 2087, p. 1). This same motivation is repeated in the Summary of the Act Temporarily Suspending the Investment Credit and Limiting the Use of Accelerated Depreciation prepared by the Joint Committee on Internal Revenue Taxation (JCS-16-66, 12/9/66, p. 1). The House report was also very clear that the action focused on the capital goods sector because prices in that sector were rising particularly quickly and strong investment demand was perceived to be pushing up interest rates (House Report No. 2087, p. 9). The report stated: "the bill will affect those sectors of the economy where inflationary pressures are strongest" (p. 3). The goal was clearly not just to deal with the investment boom, but also to protect the economy more generally. The House report stated: "The application of fiscal restraints will help to keep the recent rate of increase in prices from accelerating and developing into a serious wage-price spiral" (p. 10).

If the suspension of the ITC had been only to deal with the sectoral imbalance, it might arguably have been exogenous. However, as the previous discussion makes clear, the administration was clearly concerned about the macroeconomic effects of the conditions in the investment sector. Moreover, the temporary suspension of the ITC was part of a general move to restraint and was primarily designed to prevent supranormal growth in the economy overall. For this reason, we classify it as an endogenous, countercyclical action.

The suspension of the ITC was passed in early November 1966 and made retroactive to October 10, 1966. Because the bill was passed before the middle of the fourth quarter, our usual procedures indicate a date for the action of 1966Q4. And since the retroactive provisions fell entirely within the fourth quarter, there is no need to adjust our revenue estimates to take them into account. A Congressional document prepared shortly after the passage of the law reported that the overall revenue loss from the suspension was expected to be $1.885 billion (JCS-16-66, 12/9/66, p. 23). Since the suspension was scheduled to be effective for slightly less than one and a quarter years, this corresponds to a tax increase of $1.5 billion at an annual rate.

The nature of the tax change was a temporary suspension of the 7 percent ITC. The law called for the ITC to be reinstated on January 1, 1968. It was in fact reinstated earlier—in June 1967, retroactive to March 10, 1967.

Public Law 90-26 (Restoration of the Investment Tax Credit)

Signed: 6/13/67
Change in Liabilities (excluding retroactive changes):
1967Q3 –$1.6 billion (Exogenous; Long-run)
Change in Liabilities (including retroactive changes):
1967Q3 –$5.5 billion (Exogenous; Long-run)
1967Q4 +$3.9 billion (Exogenous; Long-run)
Present Value:
1967Q2 –$1.63 billion (Exogenous; Long-run)

The 7 percent investment tax credit, which had been temporarily suspended by Public Law 89-800, was reinstated approximately six months sooner than originally called for. The motivation for the reinstatement was most definitely not a sense that the economy was slowing. All the administration documents for this period indicate that the economy was booming and that the key worry was overheating. Both the 1967 and 1968 *Economic Reports* stressed that unemployment was low and that inflation was a key problem (1967, pp. 2-7; 1968, pp. 4-8). The main fiscal action being proposed starting in late 1966 was a surcharge on corporate and personal income taxes. The 1967 *Economic Report* stated: "A shift toward restraint in fiscal policy is appropriate … to assure that demand does not outrun capacity" (p. 62). The 1968 *Economic Report* stated: "restraint is essential to our economic health," and called for an even larger tax surcharge (p. 10). That the restoration of the ITC occurred at a time when economic developments were understood to warrant a tax increase to offset them suggests that the tax cut was exogenous. It was clearly not aimed at maintaining normal overall growth.

The Johnson administration justified the reinstatement by saying that the particular circumstances that led them to call for the suspension were no longer present. In this regard, there seems to have been some rewriting of history. In 1967, the administration portrayed the suspension in the previous year as solely aimed at conditions in the capital goods sector. For example, in his Congressional testimony urging reinstatement, Secretary of the Treasury Fowler said of the suspension: "It was an economic measure, with a limited, well defined purpose: namely, to relieve the excessive pressures that were clearly observable in the capital goods market" (1967 Treasury *Annual Report*, Exhibit 34, p. 287). This is quite different from his 1966 testimony that it would "promote a more sustainable rate of balanced economic growth" (1967 Treasury *Annual Report*, Exhibit 33, p. 279).

All of the presidential documents cite improvements in conditions in the capital goods sector as the reason for restoration. In his Special Message to the Congress Recommending Reinstatement of the Investment Tax Credit and Accelerated Depreciation Investment Incentives, President Johnson listed several changes, such as a drop in interest rates and a decline in the backlog of machinery orders, and said: "On the basis of this evidence, it is clear that the investment credit and accelerated depreciation … should now be safely restored. Although the demand for capital goods continues to be strong and remains at record levels, … it no longer threatens to strain our growing ability to produce" (3/9/67, p. 2). The 1968 *Economic Report* simply stated that "the suspension of the investment credit had done its job" in getting down interest rates and thereby aiding a recovery in homebuilding (p. 70).

Secretary Fowler, in his testimony urging reinstatement, emphasized the longer-term motivation for the ITC. He stated: "The termination of the suspension of the investment credit, of course, restores some incentive to investment that was inoperative during the suspension period. I do not, however, consider that such action is being taken for the purpose of stimulating the economy. Rather, I view it as simply restoring to its normal, functioning role what is essentially an integral part of the permanent tax structure" (1967 Treasury *Annual Report*, Exhibit 34, p. 288). He drew a clear distinction between the restoration and the proposed tax surcharge. He stated:

> the suspension of the investment credit was not a revenue measure. It had a specific and limited objective—to dampen the excessive boom being experienced last year in the

> market for capital goods. The excessive boom is over, and there is no reason for continuing the suspension.
>
> The surcharge, on the other hand, is an overall across-the-board fiscal measure designed to cope with the economic and budgetary situation and outlook as we anticipate it for the latter part of 1967 (1967 Treasury *Annual Report*, Exhibit 34, pp. 288-289).

Congressional documents also stress the turnaround in conditions in the capital goods sector as the key motivation for the reinstatement of the ITC. The House report stated: "The suspensions have played an important part in reducing the volume of new orders of capital goods to levels that can be sustained without inflationary strain on available capacity. … Restoration of these provisions now is appropriate to encourage a resumption of balanced, economic growth with high levels of employment" (90th Congress, 1st Session, House of Representatives Report No. 131, 3/15/67, p. 2). The report, however, was somewhat ambiguous when it stated: "The inflationary forces which the suspension of these provisions was designed to moderate have abated" (p. 2). From the context it appears that it was referring to conditions in the capital goods sector, not the overall economy. The Committee seemed to be concerned that investment was not growing as rapidly as the rest of the economy. It stated: "business investment incentives need to be restored if we are to have the capital investment expansion required by a balanced growing economy" (p. 13). However, the report does not express concern about general overheating in the way the administration did.

The reinstatement of the ITC was clearly motivated by conditions in a particular sector and concern about longer-run incentives for investment. The action appears to have been taken without concern for short-run macroeconomic conditions. For this reason, we classify it as an exogenous, long-run action.

The restoration was signed in June 1967, so we date it as occurring in 1967Q3. The revenue effects of the restoration bill were somewhat complicated. The bill did three things. First, it reinstated the ITC retroactive to March 10, 1967. The revenue estimates prepared for the version of the bill that originally passed the Senate, which only included this feature, indicated that the reinstatement would lower revenues by $1.085 billion ($90^{th}$ Congress, 1st Session, Senate Report No. 79, p. 15). Since the ITC was already scheduled to be restored on January 1, 1968, the effect of this version would have been to restore it for slightly less than ten months. Thus the figure of $1.085 billion implies a revenue loss of approximately $1.3 billion at an annual rate; this is similar to our estimate of the revenue effects of the original suspension. Because of the retroactive feature, there were in effect two quarters of tax reduction in 1967Q3. Thus the effects of the basic restoration of the ITC are a tax cut of $2.6 billion at an annual rate in 1967Q3 followed by an increase of $1.3 billion in 1967Q4 (as a result of the end of the retroactive element).

Second, the final bill included additional retroactivity provisions that had the effect of making the ITC apply to almost all investment that occurred during the period of suspension (House Report No. 131, pp. 14-15). Since these additional provisions were included in the House version of the bill but not in the Senate version, we can use the difference in the estimated revenue effects of the restoration in the two bills as an estimate of the revenue effects of the additional retroactivity provisions (House Report No. 131, pp. 14-15; Senate Report No. 79, pp. 14-15). This difference is $0.57, which corresponds to a one-time tax reduction of $2.3 billion at an annual rate (four times $0.57 billion) in 1967Q3. In changes, this is a tax reduction of $2.3 billion in 1967Q3 and an increase of $2.3 billion in 1967Q4.

Third, the bill that temporarily suspended the ITC called for the ceiling on the ITC to be higher after it was restored. This provision was expected to lower revenues by $1.05 billion over the years 1968-1970 (Summary of the Act Temporarily Suspending the Investment Credit and Limiting the Use of Accelerated Depreciation prepared by the Joint Committee on Internal Revenue Taxation, JCS-16-66, 12/9/66, p. 23). The bill restoring the ITC caused this provision to go into effect earlier, which was expected to lower revenues by an additional $0.205 billion over the years 1967-1970 (House Report No. 131, p. 15). Thus, the increase in the ceiling that went into effect with the restoration of the ITC was expected to reduce revenues by a total of $1.255 billion over a four-year period, or about $0.3 billion per

year. As with the basic restoration, this feature was effective in 1967Q3 and was retroactive for one quarter. This corresponds to a tax cut of $0.6 billion in 1967Q3 followed by an increase of $0.3 billion in 1967Q4.

Combining these estimates yields a tax cut of $5.5 billion in 1967Q3 and an increase of $3.9 billion in 1967Q4. If one chose to neglect the retroactive elements, these would be just a cut of $1.6 billion in 1967Q3.

The nature of the tax cut is obviously an increase in the tax incentives for investment. The cut undid a temporary suspension of the investment tax credit. The restoration was portrayed as permanent. Indeed, the Secretary of the Treasury went to some pains to emphasize that "[t]he investment tax credit is an essential, and should be an enduring part of our tax system" (1967 Treasury *Annual Report*, Exhibit 34, p. 286).

<u>Social Security Amendments of 1967</u>

Signed: 1/2/68
Change in Liabilities:

1968Q1	+$2.0 billion	(Endogenous; Spending-driven)
1969Q1	+$3.0 billion	(Endogenous; Spending-driven)
1971Q1	+$3.6 billion	(Exogenous; Deficit-driven)

Present Value:

1968Q1	+$7.89 billion	(Endogenous; Spending-driven)

This bill increased the Social Security tax base effective January 1, 1968, and increased the Social Security tax rate on January 1, 1969 and again on January 1, 1971 (1968 Treasury *Annual Report*, p. 32). Provisions calling for further increases in the tax rate were changed by later legislation.

The motivation for the tax increase was increased Social Security spending. Benefits were increased effective February 1968, and various provisions of the program were liberalized (*Social Security Bulletin*, February 1968, pp. 9-10, 22). The February 1968 *Social Security Bulletin* reported that the increased spending was to be financed partly out of a projected positive long-run actuarial balance in the Social Security program, and that the "remaining cost of the cash benefit provisions and the cost of the hospital insurance provisions will be financed by: (1) an increase in the contribution and benefit base … and (2) a revised contribution rate schedule for the cash benefits" (pp. 15-16). The tax increase in January 1968 is thus clearly an endogenous, spending-driven action. Likewise, the 1969 increase occurred slightly less than a year after the increase in spending. Thus, following our usual rule for delayed tax increases to pay for spending changes, we also classify this increase as an endogenous, spending-driven action. In contrast, the tax increase in January 1971 occurred almost three years after the increase in spending that motivated it. It is obviously unlikely that the economy was still adjusting to the increase in spending. Thus, in accordance with our rule, we classify this increase as an exogenous, deficit-driven action.

The 1968 *Economic Report* gave a figure of $2 billion at an annual rate for the revenue effects of the 1968 tax increase (p. 54). The date of the increase is clearly 1968Q1. Both the 1969 and 1970 *Economic Reports* reported a figure of $3 billion at an annual rate for the 1969 increase (1969, p. 56; 1970, p. 32). This increase occurred in 1969Q1. The *Economic Reports* did not provide any information about the 1971 increase. The 1972 *Budget*, however, reported that this increase was expected to raise revenue in fiscal 1972 (the first full fiscal year the increase was scheduled to be in effect) by $3.6 billion (p. 74). We therefore estimate the revenue effect as a rise of $3.6 billion at an annual rate in 1971Q1.

When using the present value measure, it is appropriate to reclassify the tax change in 1971Q1 as an endogenous, spending-driven change. This change is classified as deficit-driven when we use the change in liabilities as the revenue measure because it occurs more than a year after the spending change

that motivated it. But in a framework emphasizing news, the future tax change should be treated as spending-driven.

The amendments raised marginal tax rates on low- and middle-income taxpayers. The changes were expected to be permanent.

Revenue and Expenditure Control Act of 1968

Signed: 6/28/68
Change in Liabilities (excluding retroactive changes):
1968Q3 +$8.5 billion (Endogenous; Countercyclical)
1969Q1 +$1.7 billion (Endogenous; Countercyclical)
Change in Liabilities (including retroactive changes):
1968Q3 +$25.5 billion (Endogenous; Countercyclical)
1968Q4 –$17.0 billion (Endogenous; Countercyclical)
1969Q1 +$1.7 billion (Endogenous; Countercyclical)
Present Value:
1968Q2 +$10.25 billion (Endogenous; Countercyclical)

The motivation for the Revenue and Expenditure Control Act of 1968 was to prevent the economy from overheating. The proposal for a temporary tax surcharge was first made in January 1967. The 1967 *Economic Report* said that by mid-1967 the economy would be very strong and a "shift toward restraint in fiscal policy is appropriate at that time to assure that demand does not outrun capacity, that movement toward restoration of price stability is maintained" (p. 62). This same motivation is cited in the President's Annual Budget Message to the Congress, Fiscal Year 1968 (1/24/67, p. 2). In August 1967, the president delivered a Special Message to the Congress: The State of the Budget and the Economy, which said the budget situation was much worse than predicted in January and asked for a 10 percent (rather than the previously requested 6 percent) tax surcharge (8/3/67, pp. 1, 4). The president stated: "the fiscal program we are recommending is consistent with a sound and healthy economic advance during the year ahead" (p. 5). He listed as the consequences of not raising taxes: "a return of strong inflationary pressures," "[a]n excessive expansion of domestic markets," and "[s]piraling interest rates" (p. 5).

The president continued to press for the tax increase throughout the first half of 1968. The 1968 *Economic Report* stated: "Most experienced observers agree that the pace [of economic growth] now is—and in the months ahead will be—too fast for safety" (p. 9), and that fiscal "restraint is essential to our economic health" (p. 10). The Annual Budget Message to the Congress, Fiscal Year 1969 stated: "The problems of rising prices and interest rates, and a worsening balance of payments, arise from many causes. … But central to any attack upon them is a fiscal policy which … sharply reduces the inappropriate stimulus of a large Federal budget deficit in today's vigorous economy" (1/29/68, p. 3). These motivations were reiterated in the Statement by the President Upon Signing the Tax Bill. For example, he stated: "The Nation's economy is moving too fast because of an unacceptable budgetary deficit. We must now apply the fiscal brakes" (6/28/68, p. 1).

Congressional motivation for the tax increase strongly parallels the administration's. The Revenue and Expenditure Control Act of 1968 began as the Tax Adjustment Act of 1968 and originally contained only the continuation of the excise taxes on automobiles and telephone service. The surtax and other changes were proposed as a substitute amendment (called the Williams-Smathers Amendment) on the floor of the Senate. The conference bill was almost identical to the substitute amendment. The debate on the Williams-Smathers amendment was heated. The proponents emphasized the need for fiscal restraint to control inflation and to restore confidence in the dollar. Senator Williams stated: "It represents the minimum action we should take at this time to preserve the security of our dollar and prevent runaway inflation" (*Congressional Record*, 90th Congress, 2d Session, Volume 114—Part 7,

4/2/68, p. 8564). Senator Smathers read into the *Congressional Record* the President's speech of the night before, which said that the deficit was "a threat to the dollar's role as the keystone of international trade and finance in the world" (p. 8551). Senator Javits said: "the reason why we are acting … is that we feel the country and the world are in a very serious situation with respect to the inflationary surge in our country, with respect to the serious imbalance of international payments, and with respect to the very serious imbalance in our budget" (p. 8277). The opponents of the bill, such as Senator Proxmire, chairman of the Joint Economic Committee, said that the bill would slow growth too much and that "this proposal will aggravate that increase in cost pressures against prices, because taxes are a cost" (p. 8544). The amendment passed by a vote of 53 to 35.

Because the tax change was designed to return growth to its normal, sustainable level, we classify it as an endogenous, countercyclical action.

The bill was signed June 28, 1968. We therefore date the tax increase in 1968Q3. The 1969 *Economic Report* said, "The tax surcharge alone is currently withdrawing about $10½ billion (annual rate) from the income stream" (p. 39). The 1970 *Budget* gave a number of $10.2 billion for the fiscal year 1969 effects of the tax surcharge (p. 61). The 1968 Treasury *Annual Report* also gave an estimate of the "full year liability at 1968 income levels" of the surcharge of $10.2 billion, of which $3.4 billion was from the increase tax on corporations and $6.8 billion from the increased income tax on individuals (p. 30). Because the estimate from the *Budget* and the Treasury *Annual Report* are more precise and contain useful detail (but are also very similar to the number from the *Economic Report*), we use $10.2 billion as the annual revenue effect. The bill also extended the excise taxes on automobiles and telephone service that were due to expire. However, because the continuation of the existing tax does not change tax revenues, we ignore those effects.

Once again, the revenue estimates are complicated by retroactivity provisions. The corporate income tax increase was retroactive to January 1, 1968. Therefore, the rise in corporate taxes in 1968Q3 was 3 quarters · $3.4 billion (the share of the total increase paid by corporations), or $10.2 billion at an annual rate. The personal income tax increase was described as being retroactive April 1, 1968. In fact, however, this was implemented as a 7.5 percent surcharge on personal income tax liabilities for all of 1968. Thus the increase was retroactive to January 1, 1968, but at a lower rate than the announced 10 percent surcharge. Therefore, the rise in personal income taxes in 1968Q3 at an annual rate was $6.8 billion (annual revenues from a 10 percent surcharge on personal income taxes) times 0.75 (because the actual surcharge was 7.5 percent) times three (because the increase applied not only to 1968Q3, but to the previous two quarters), or $15.3 billion. Thus the total tax increase in 1968Q3 was $25.5 billion at an annual rate. In 1968Q4, the surcharge at an annual rate was $3.4 billion for corporations plus 0.75 times $6.8 billion for individuals, or $8.5 billion; this was a fall of $17.0 billion from the previous quarter. Finally, beginning in 1969Q1 the increased revenues were at their steady state level of $10.2 billion, or an increase of $1.7 billion over 1968Q4. Note that if one neglected the retroactive features, the bill would have raised revenues by $8.5 billion in 1968Q3 and by an additional $1.7 billion in 1969Q1.

The Revenue and Expenditure Control Act of 1968 imposed a 10 percent surcharge on corporate and individual income taxes. It, therefore, raised marginal tax rates. The tax increase was explicitly temporary: it was scheduled to end June 30, 1969. It was extended by two temporary measures, and was finally repealed in steps by the Tax Reform Act of 1969. The bill also contained a provision whereby expenditures would be reduced by $6 billion.

<u>Tax Reform Act of 1969</u>

Signed: 12/30/69
Change in Liabilities (excluding retroactive changes):

1970Q1	–$6.7 billion	(Endogenous; Countercyclical)
1971Q1	–$4.7 billion	(Endogenous; Countercyclical)
	–$1.0 billion	(Exogenous; Long-run)

1972Q1	–$1.1 billion	(Endogenous; Countercyclical)
	–$1.0 billion	(Exogenous; Long-run)

Change in Liabilities (including retroactive changes):

1970Q1	–$3.1 billion	(Endogenous; Countercyclical)
1970Q2	–$3.6 billion	(Endogenous; Countercyclical)
1971Q1	–$4.7 billion	(Endogenous; Countercyclical)
	–$1.0 billion	(Exogenous; Long-run)
1972Q1	–$1.1 billion	(Endogenous; Countercyclical)
	–$1.0 billion	(Exogenous; Long-run)

Present Value:

1969Q4	–$11.72 billion	(Endogenous; Countercyclical)
1969Q4	–$1.76 billion	(Exogenous; Long-run)

The motivation and history of the Tax Reform Act of 1969 are somewhat complicated. In early 1970, the Nixon administration believed that fiscal and monetary policy were tight, and that as a result growth was likely to be low until policy changed. For example, the 1970 *Economic Report* stated: "As we enter 1970 continuation of a low rate of growth of sales, production, and employment for several months seems probable. Thereafter, the performance of the economy will depend on both the continued resolve of the Government and the difficult-to-predict behavior of the private sector" (p. 7). The administration thought that a period of low growth was appropriate to reduce inflation, but it did not want the low growth to continue indefinitely. According to the 1970 *Economic Report*, "After some months of slow expansion of sales, output, and employment, which seems likely, a moderately quicker pace later in the year would be consistent with continued progress in reducing the rate of inflation" (p. 8).

To achieve these objectives, in March 1969 President Nixon had asked that the surcharge be extended through June 30, 1970 and then allowed to expire (Special Message to the Congress on Fiscal Policy, 3/26/69, p. 2; 1970 *Economic Report*, p. 31). If this proposal had been enacted, it clearly would have been an endogenous tax cut equal to the amount raised by the surcharge: the surcharge would have been allowed to expire to counter lower-than-normal expected growth.

In April 1969, concerns about efficiency and long-run issues led the president to propose a somewhat different plan, but with similar expected short-run macroeconomic consequences. In announcing the new plan, Nixon stated, "The overall program will be equitable and essentially neutral in its revenue impact [relative to his previous proposal]" (Special Message to the Congress on Reform of the Federal Tax System, 4/21/69, p. 1). A key portion of the revised plan was repeal of the investment tax credit. Nixon stated, "The revenue effect of the repeal of the investment tax credit will begin to be significant during calendar year 1970. Therefore, I recommend that investment tax credit repeal be accompanied by extension of the full surcharge only to January 1, 1970, with a reduction to 5% on January 1. … If economic and fiscal conditions permit, we can look forward to elimination of the remaining surtax on June 30, 1970" (p. 2). The annual revenue raised from repeal of the credit would have been similar to the revenue loss from lowering the surcharge from 10 percent to 5 percent for the first half of 1970 (1969 Treasury *Annual Report*, p. XVII; 1972 *Budget*, p. 74). Thus the plan would have had little impact on revenues in 1970 relative to the original proposal of extending the full surcharge through mid-1970 and then letting it expire. After 1970, the repeal of the credit would have increased revenues relative to the original proposal. The president proposed using these revenues to fund tax credits and revenue sharing (Special Message to the Congress on Reform of the Federal Tax System, p. 3).

The bill that was finally enacted cut taxes by more than the president had proposed, however. The 1970 *Economic Report* stated: "The tax bill passed in December reduced revenues for the next fiscal year by close to $3 billion, compared to my original proposals" (p. 7; see also Statement on Signing the Tax Reform Act of 1969, 12/30/69, p. 2, which gives the figure as "almost $3 billion"; and Annual Budget Message to the Congress, Fiscal Year 1971, 2/2/70, p. 4, which gives $2.9 billion). The 1969 Treasury *Annual Report* reported that the bill was expected to cause a long-run revenue loss—in addition to the termination of the surcharge—of $2.4 billion at an annual rate, whereas the president's proposal

would have had no long-run impact on the deficit other than the end of the surcharge (p. XVII; see also the 1970 Treasury *Annual Report*, p. 29, which gives the long-run revenue loss as $2.5 billion).

Thus the presidential documents indicate that the bulk of the tax cuts were an endogenous, countercyclical change designed to offset projected below-normal growth. But, they indicate that there were $2.4 to $3 billion of cuts beyond what was appropriate from a macroeconomic standpoint, and that are likely exogenous.

Since several features of the Tax Reform Act of 1969 were added by Congress, it is particularly important to consider Congress's motivation. The administration initially proposed extending the surcharge in 1969 and considering tax reform the following year, but the Congressional leadership insisted on considering the two simultaneously (*Congressional Record*, 91st Congress, 1st Session, Vol. 115—Part 30, 12/22/69, p. 40690). The House resolution, as it came out of the Ways and Means Committee, was broadly similar in its effects on tax revenues to the president's original plan to extend the surcharge at 10% for one-half of 1970 and then eliminate it. In particular, the reform and relief provisions of the resolution were revenue neutral in the long run (91st Congress, 1st Session, House of Representatives Report 91-413 (Part 1), 8/2/69, p. 4). This is circumstantial evidence that the Ways and Means Committee agreed with the president's belief that macroeconomic conditions after the middle of 1970 could tolerate the elimination of the surcharge without igniting abnormal growth and inflation. Indeed, the House report contained numerous references to "inflationary pressures in the period immediately ahead" (p. 12), suggesting that members thought such pressures would not be present further down the line. Thus, the committee can be read as supporting the view that the tax cuts contained in the president's original proposal were endogenous. The motivation for the long-run revenue-neutral tax reform and relief was fairness and equity. The House report stated: "Tax reform is necessary … to be sure that those with substantially the same incomes are paying substantially the same tax" and "in order to make general tax reductions possible" (p. 10).

As the resolution was debated on the House and Senate floors, further tax relief was added. The final Conference report had a long-run revenue loss of –$2.5 billion (in addition to the effect of the end of the surcharge) (*Congressional Record*, 91st Congress, 1st Session, Vol. 115—Part 30, 12/22/69, p. 40703). The final debate in the house makes it clear that this $2.5 billion extra tax cut was not motivated by concern about future low growth. A number of Congressmen said that they feared the future cuts would be inflationary. For example, Mr. Byrnes said: "I think our problem concerns the situation that will develop as a result of the long-range impact of some of the provisions of this legislation that will take effect in 1972, in 1973, and 1974. In the long run there is the potential of inflationary problems" (p. 40881). This concern about inflation a few years out suggests that the cuts were not designed to merely return growth to normal.

A variety of motivations were given for the additional cuts. The Senate report on the bill stressed fairness, equity, and a desire to help the poor (91st Congress, 1st Session, Senate Report No. 91-552, 11/21/69, pp. 13-15). The debate on the Senate version of the bill, which was amended to include even larger long-run revenue losses, stressed political gain as the motivation. For example, Mr. Williams, ranking minority member of the Committee on Finance, stated: "the Senate has turned what was supposed to be a tax reform bill into a political Christmas package which promises everything to everybody" (*Congressional Record*, 91st Congress, 1st Session, Vol. 115—Part 28, 12/11/69, p. 38385). This same motivation was mentioned frequently in the final House debate. For example, Mr. Robison stated: "We have responded—responsibly or not—to what we have read as our constituents' political demands for Federal tax relief" (*Congressional Record*, 91st Congress, 1st Session, Vol. 115—Part 30, 12/22/69, p. 40898). Philosophical arguments were also given. Wilbur Mills, chairman of the Ways and Means Committee, said: "This bill itself is not inflationary. It is the combination of all things that one has to consider. … The expenditure side must be added to it. … I think the Congress is just as much in the right to establish as a No. 1 priority the return of some of the increment in taxes to the taxpayers" (12/22/69, p. 40882).

Because the additional long-run tax cuts were motivated by reasons unrelated to spending increases or a desire to return growth to normal, we classify them as exogenous. Because these

exogenous changes were not for deficit reduction, they fall into the catchall category of changes for long-run growth. This notion that there was an exogenous as well as an endogenous component to the tax cut contained in the Tax Reform Act of 1969 is consistent with our reading of the presidential documents. As discussed above, administration sources suggested $2.4 to $3.0 billion as the size of the cuts motivated by something other than macroeconomic stability. Since the Congressional number of $2.5 billion is based on current income levels, we use the president's figure of $3.0 billion as a sensible, round estimate of the actual exogenous cut. The main component of the exogenous cut was a rise in the personal exemption in three equal steps at the start of 1971, 1972, and 1973. Therefore, we divide the exogenous cut into three $1.0 billion pieces occurring in 1971Q1, 1972Q1, and 1973Q1.

Deducing the total revenue effects of the Tax Reform Act of 1969 is complicated because the act did a number of things. Most obviously, it removed the tax surcharge in two steps. The 10% surcharge was scheduled to expire at the end of 1969. The bill extended the surcharge at a rate of 5% for the first half of 1970 and then eliminated it. As discussed in the analysis of the Revenue and Expenditure Control Act of 1968, the full-year effect of the 10% surcharge at 1968 income levels was $10.2 billion. Thus, this seems a reasonable lower-bound estimate of the effect of eliminating the surcharge.[11] The 1971 *Budget* implied that the 10% surcharge in effect for a full year would raise revenues by $11.9 billion (p. 66). This is quite consistent with the $10.2 billion number, allowing for growth and inflation. It is also consistent with the House report, which said that a 5% surcharge for one-half of 1970 would raise revenues by $3.1 billion (House Report No. 91-413, Part 1, Table 1, p. 4). For this reason, we take as our estimate of the revenue effects of a 10% surcharge in 1970 $11.9 billion. The Tax Reform Act of 1969 was passed in December 1969. The act reduced the surcharge from 10% to 2½% on January 1, 1970. Therefore, the estimated effect of this change was ¾ of –$11.9 billion, or –$8.9 billion in 1970Q1. The act then eliminated the surcharge at the start of 1971. The revenue effect of going from a tax rate 2½ % to 0% is therefore ¼ of –$11.9 billion, or –$3.0 billion in 1971Q1.

In addition to the reduction and repeal of the surcharge, the bill also included a number of reform and relief provisions. Among the revenue-raising reform provisions were a repeal of the 7% investment tax credit (which was made retroactive to April 1969), the introduction of a minimum tax, changes in deductions for charitable giving and farm losses, and changes in the capital gains tax. Among the relief provisions were a substantial increase in the personal exemption, a new low-income allowance, and an increase in the standard deduction. Deducing the revenue effects of all these other components is difficult because the effects took place over a number of years and our usual presidential sources are less complete than usual. Fortunately, for this act the Conference report on the bill has calendar-year effects on tax liabilities of the balance between the reform and relief provisions. The estimates for these net revenue effects (excluding the change in the surcharge) are +$2.2 billion in 1970; –$0.5 billion in 1971; –$2.6 billion in 1972; and –$3.8 billion in 1974 (*Congressional Record*, 91st Congress, 1st Session, Vol. 115—Part 30, 12/22/69, p. 40703). This implies that the net change in tax liabilities from these provisions was +$2.2 billion in 1970Q1; –$2.7 billion in 1971Q1; –$2.1 billion in 1972Q1; and –$1.2 billion in 1973Q1. As discussed above, we classify $1 billion of the cut in 1971Q1, 1972Q1, and 1973Q1 as exogenous; the rest of the cuts are endogenous. The tax cut in 1973Q1, however, was never made. It was accelerated by the Revenue Act of 1971 to 1972Q1. For this reason, we do not include the 1973Q1 cut in the revenue effects of the Tax Reform Act of 1969.

These revenue estimates include the effects of the repeal of the investment tax credit. The only component that is still missing from the analysis is the effect of making the repeal of the ITC retroactive to April 1969. The 1970 *Economic Report* stated that the revenue raised by the retroactive ITC was $0.9 billion in calendar 1969 (p. 33). Therefore, taking into account the retroactivity implies an additional tax increase in 1970Q1 of $0.9 billion times 4 (to convert to an annual rate), or $3.6 billion, and then a tax decrease of $3.6 billion in 1970Q2.

Adding together the various components yields the following revenue estimates. In 1970Q1 there

[11] For this reason, we choose to ignore a reference in Nixon's Special Message to the Congress on Fiscal Policy, which stated: "the income tax surcharge … is expected to yield $9½ billion" (3/26/69, p. 2).

was a net tax change of –$8.9 billion (from the reduction in the surcharge) + $2.2 billion (from the reform and relief provisions) + $3.6 billion (from the retroactive repeal of the ITC), or –$3.1 billion in total. All of this change was endogenous. In 1970Q2 there was a tax change of –$3.6 billion (from the end of the retroactive effects of the ITC repeal), which we classify as endogenous. In 1971Q1 there was a net tax change of –$3.0 (from the end of the surcharge) plus –$2.7 billion (from the reform and relief provisions), or –$5.7 billion total. Of this, –$1.0 billion was exogenous and –$4.7 billion was endogenous. Finally, in 1972Q1, there was a net change of –$2.1 billion (from the reform and relief provisions) of which –$1.0 billion was exogenous and –$1.1 billion was endogenous. If one ignores the retroactive aspect of the ITC repeal, there was an endogenous tax cut of –$6.7 billion in 1970Q1 (instead of –$3.1 billion) and no tax change in 1970Q2. All of the other revenue estimates would be unchanged.

Like the revenue effects, the nature of the tax change was complicated. All of the changes were legislated to be permanent. The reduction and end of the tax surcharge was a reduction in marginal tax rates. However, the increase in the personal exemption was a reduction in average tax rates. The repeal of the ITC and the many reforms of particular deductions changed the incentives for certain activities, such as investment and charitable giving.

Reform of Depreciation Rules

Announced: 1/11/71
Change in Liabilities:
1971Q1 –$2.8 billion (Exogenous; Long-run)
Present Value:
1971Q1 –$2.8 billion (Exogenous; Long-run)

The Nixon administration approved several changes in the application of the depreciation provisions of the tax laws on January 11, 1971. These changes lowered tax revenues and were retroactive to January 1, 1971. The motivation for this administrative tax cut was a desire to push growth above normal.

The administration's desired path of output was very explicit. The 1971 *Economic Report* said that in 1970 the administration had desired a slowdown in the first half of the year and then a gradual return to normal growth (pp. 23-26). The idea was to create and maintain a gap between actual and potential output that would lower inflation. For 1971, the goal was clearly to raise growth above normal and thereby reduce the rate of unemployment. The administration was quite clear that current growth was relatively normal, but that they desired higher growth. The 1971 *Economic Report* stated: "Forces now present in the economy … make economic expansion in 1971 probable" (p. 5). It then detailed positive developments, such as the decline in interest rates and the rise in exports, and said: "These are powerful upward pressures, but existing and foreseeable expansionary forces in the economy are not strong enough to assure that output will rise as much as is desired and feasible" (p. 6). The administration wished to reduce unemployment from its current level of 5.5 or 6 percent to 4.5 percent over the next year (1971 *Economic Report*, pp. 77-78). To accomplish this, the Council of Economic Advisers stated: "Total output would have to rise significantly faster than the growth rate of potential output" (p. 78).

It is clear that the reform of the depreciation guidelines was designed to help accomplish this goal. The president's section of the 1971 *Economic Report* said: "total spending and total output should rise as rapidly as possible to lift the economy to full employment and full production. Fiscal policy must play its full and responsible role" (p. 3). The *Economic Report* described the depreciation reforms as designed "to stimulate investment, jobs, and growth" (p. 6) and emphasized that "[c]oncerted policies of expansion are needed now to lift the economy fast enough to make rapid progress toward full employment" (p. 7). The president's Statement Announcing Changes in Administration of the Depreciation Provisions of the Tax Laws confirmed this motivation. It gave as the key benefit the fact that the tax cut would "help create jobs for the unemployed" (1/11/71, p. 1). The president also invoked

the motivation given for the 1962 change in depreciation guidelines: it would be "a stimulant to economic recovery," "a means of increasing competitiveness of U.S. goods in world markets," and "a major force for long-run economic growth" (p. 2). In the Annual Budget Message to the Congress, Fiscal Year 1972, Nixon said: "These rules are part of our plan to expand the economy and help the Nation achieve full employment without inflation" (1/29/71, p. 3).

Because the administrative tax cut was designed to raise growth above normal (and thereby lower unemployment substantially), we classify this tax change as an exogenous, long-run action.

The change in the depreciation rules was made in early January, so we date the tax cut in 1971Q1. The revenue estimates are quite straightforward. The speech announcing the new guidelines said that the changes would reduce tax payments in calendar 1971 by $2.6 billion (1/11/71, p. 1). The 1971 *Economic Report* said it would reduce receipts by $2.7 billion in fiscal 1972 (p. 6). This number is repeated in the 1972 *Budget* (p. 74). The 1972 *Economic Report* said: "The Treasury Department estimated that in the first full year following these changes … taxes on business income [would be] reduced by $2.8 billion" (p. 33). Because this estimate appears to be for calendar 1971 and is quite definite, we use this as our measure of the revenue effect. The reforms were made retroactive by eleven days. However, because we have no direct information on the effects of this retroactivity (and since the period is so short), we ignore this component of the change.

The tax cut took the form of a revision in the depreciation guidelines for business investment. In particular, the reforms shortened the assumed life of the equipment and allowed more of the depreciation to be claimed in the first year. The changes were billed as permanent. However, Congress largely undid the new regulations allowing for greater depreciation in the first year in the Revenue Act of 1971. The new administrative guidelines increased the incentives for investment.

1971 Changes to Social Security

Signed: 3/17/71
Change in Liabilities:
1972Q1 +$3.1 billion (Endogenous; Spending-driven)
Present Value:
1971Q1 +$2.95 billion (Endogenous; Spending-driven)

In March 1971, Congress attached some amendments to the Social Security Act to a bill increasing the debt limit. The amendments increased the Social Security tax base on January 1, 1972 and changed the scheduled path of Social Security tax rates starting in 1976 (*Social Security Bulletin*, May 1971, p. 1). Only the increase in the base occurred as scheduled, however.

The amendments increased Social Security benefits retroactive to January 1971. Actual spending did not increase until June, however (*Social Security Bulletin*, May 1971, p. 1). The purpose of the increase in the tax base was to fund the higher benefits. For example, in his statement signing the bill, President Nixon referred to the higher base in a discussion of "increased contributions required to pay for these new … benefits" (Statement on Signing Bill Increasing Social Security Benefits, 3/17/71, p. 1). Similarly, the 1971 *Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds* stated, "The amendments provide an increase in benefits that affects significantly both the immediate and long-range future levels of disbursements under the old-age, survivors, and disability insurance program. The contribution and benefit base was increased and the schedule of contribution rates in prior law was revised to continue to reflect the intent that the cash benefits program be self-supporting" (p. 4). Because the tax increase was motivated by a roughly contemporaneous increase in spending, we classify it as an endogenous, spending-driven action.

The 1973 *Budget* reported that the increase raised revenue in fiscal 1973 (which was the first full fiscal year the change was in effect) by $3.1 billion (p. 67). Because the increase occurred on January 1, 1972, we date it in 1972Q1.

The increase raised marginal tax rates on middle-income taxpayers. It was intended to be permanent.

Revenue Act of 1971

Signed: 12/10/71
Change in Liabilities (excluding retroactive changes):
1972Q1 –$8.0 billion (Exogenous; Long-run)
Change in Liabilities (including retroactive changes):
1972Q1 –$14.7 billion (Exogenous; Long-run)
1972Q2 +$6.7 billion (Exogenous; Long-run)
Present Value:
1971Q4 –$7.98 billion (Exogenous; Long-run)

The Revenue Act of 1971 was one piece of Nixon's "New Economic Policy" announced on August 15, 1971. In addition to the tax cut, the New Economic Policy included wage and price controls and a suspension of convertibility of the dollar. The motivation for the tax cut was exactly the same as that for the reform of the depreciation guidelines in early 1971: it was designed to raise growth above normal, and thereby lower unemployment.

The administration was very clear that growth was relatively normal at the time the tax cut was proposed. The 1972 *Economic Report* stated: "As the summer of 1971 progressed, these facts became increasingly clear: 1. The economy was rising, and a continued rise could be expected; but the rise was not as fast as was desirable, especially from the standpoint of reducing unemployment" (p. 65). Likewise, in his Address to the Nation Outlining a New Economic Policy: "The Challenge of Peace," Nixon referred to "this broad upturn of the economy which has taken place in the first half of this year" (8/15/71, p. 2). The 1972 *Economic Report*, transmitted to Congress just a month after the bill was signed, said that real GNP growth had been about 3 percent per year in the second and third quarters of 1971, and 6 percent in the fourth quarter (p. 5).

Even though growth was relatively normal, the administration wanted it to be faster. The 1972 *Economic Report* stated: "The decision to embark on the New Economic Policy (NEP) came from an increasing awareness in the Administration that the ambitious goals it had set at the beginning of the year were not being met. … [T]he recovery was also progressing, but not fast enough to cut the rate of unemployment" (p. 29). It explained: "The Administration's goals went beyond this common appraisal of the year 1971. It believed that a more rapid expansion of the economy than was generally forecast was desirable and feasible. The desirable and feasible path was believed to be one that would bring the unemployment rate down to the zone of 4½ percent [from its current rate of about 6 percent] by the middle of 1972" (p. 21).

The administration coupled a tax cut with wage and price controls as a way to raise growth without exacerbating inflation (1972 *Economic Report*, p. 22). The 1972 *Economic Report* said: "The fiscal package … was primarily motivated by the desire to stimulate at once a more rapid expansion of the economy" (p. 69). Nixon described the Revenue Act of 1971 as "a critical part of the program I announced then to create new jobs and build a new prosperity" (Statement About the Revenue Act of 1971, 12/10/71, p. 1).

At first glance, the rhetoric of the House report on the bill makes it sound as though Congress was genuinely worried about the state of the economy and might be acting to merely return growth to normal. It stated: "Your committee believes that this bill is necessary because the performance of the economy in recent months has been unsatisfactory. The growth in our gross national product has been small, unemployment has remained too high" (92^{d} Congress, 1st Session, House of Representative Report No. 92-533, 9/29/71, p. 3). However, closer reading reveals motivation very similar to that of the administration. The Ways and Means Committee was concerned that "[i]n the first half of 1971 … the

economy grew at a real rate of only about 3 percent" (p. 3). The bill was designed to "put our present lagging economy on the high growth path," (p. 1) and to deal with the fact that "the unemployment rate has shown no inclination to return to the 4-percent level which represents the rate generally viewed as the full employment rate" (p. 4).

Because both the administration and Congress were motivated to cut taxes by a desire to push growth above normal, we classify this tax cut as an exogenous, long-run action.

The Revenue Act of 1971 cut taxes in a number of ways. The most important provision was the reimposition of the 7 percent investment tax credit, now called a job development credit. The act also repealed the excise tax on autos and light trucks. Both of these changes were made retroactive to August 1971. Finally, the act accelerated the rise in the personal exemption (to $750) that had been legislated to happen on January 1, 1973 to January 1, 1972. It also raised the personal exemption by $25 in 1971.

The revenue estimates are again somewhat complicated because of the retroactive components and a somewhat remarkable lack of discussion of magnitudes in administration sources. The 1972 *Economic Report* said that tax law changes between calendar 1971 and calendar 1972 lowered revenues by $8.9 billion (p. 106). However, this number is surely an overestimate of the effects of the Revenue Act of 1971 because it includes changes legislated in the Tax Reform Act of 1969. In his Address to the Congress on Stabilization of the Economy, Nixon said his proposals would cut taxes on individuals by $3.2 billion and would provide $2.7 billion in investment incentives to businesses (9/9/71, p. 2). The fiscal 1973 *Budget* gave effects on receipts of –$4.4 billion in fiscal 1972 and –$6.9 billion in fiscal 1973 (p. 67). These estimates provide little guidance about the effects of the retroactive components.

As with the Tax Reform Act of 1969, the most precise and comprehensive revenue estimates are contained in the Conference report. According to this source, the total effect of the act on liabilities was -$1.68 billion in calendar 1971; –$7.99 billion in 1972; and –$6.05 billion in 1973 (*Congressional Record*, 92d Congress, 1st Session, Vol. 117—Part 35, 12/9/71, p. 45857). The –$1.68 billion in 1971 is an estimate of the retroactive component. Since the act was passed in mid-December 1971, we date the retroactive portion of the tax cut in 1972Q1. To convert it to an annual rate, we multiply by four, yielding an estimate of –$6.7 billion. There was then a tax increase of $6.7 billion in 1972Q2 when the retroactive component disappears. The revenue estimate for calendar 1972 suggests there was another tax decrease in 1972Q1 of $8.0 billion. So, there was a total exogenous tax change in 1972Q1 of –$6.7 billion plus -$8.0 billion, or –$14.7 billion. The Congressional estimates show that taxes then rose $1.9 billion in January 1973 as a result of the law. This is consistent with the fact that one feature of the act simply accelerated a tax cut mandated by the Tax Reform Act of 1969. However, since this is only a change relative to current law, not a genuine change in liabilities, it does not enter our final revenue estimates. If one ignores the retroactive components, there was an exogenous tax change of –$8.0 billion in 1972Q1. This number is broadly consistent with those given in the *Economic Reports* and the *Budget*.

The Revenue Act of 1971 obviously changed the incentives for investment and for purchasing cars and light trucks. It accelerated a previously scheduled rise in the personal exemption, and so lowered average tax rates. All the tax changes included in the law were legislated to be permanent. The President pledged at the time he proposed the law to cut spending by $4.7 billion as well (Address to the Nation Outlining a New Economic Policy: "The Challenge of Peace," 8/15/71, p. 2). According to the president, the cut in taxes was supposed to stimulate growth, while the cut in expenditure would help control inflation.

<u>1972 Changes to Social Security</u>

Signed: 7/1/72 and 10/30/72
Change in Liabilities:
1973Q1 +$10.0 billion (Endogenous; Spending-driven)
1978Q1 +$2.9 billion (Exogenous; Deficit-driven)
Present Value:
1972Q3 +$11.84 billion (Endogenous; Spending-driven)

In July 1972, Congress attached amendments to the Social Security Act to a bill extending the debt limit. In October, Congress passed the Social Security Amendments of 1972. The two bills raised the Social Security tax base from $9000 to $10,800 on January 1, 1973, increased the Social Security tax rate from 10.4 percent to 11.7 percent on January 1, 1973, and increased it further to 12.1 percent on January 1, 1978 (1972 Treasury *Annual Report*, pp. 40-41; *Social Security Bulletin*, March 1973, pp. 3-15, 23). The bills also provided for other changes in the tax base and tax rate that were modified by later legislation.

The motivation for these changes was to pay for higher Social Security benefits. Benefits were increased by 20 percent in September 1972 and liberalized in various ways (*Social Security Bulletin*, March 1973, pp. 3-25). The Annual Budget Message to the Congress, Fiscal Year 1974 referred to the tax changes in 1973 as "the payroll tax increases enacted to finance higher social security benefits" (1/29/73, p. 4). Similarly, the March 1973 *Social Security Bulletin* reported: "Consistent with past policy of maintaining the social security program on a sound financial basis, provision is made for meeting the cost of the expanded program. The costs of the cash benefits program and the hospital insurance program are to be financed by revised contribution rate schedules" (p. 23). Thus, the 1973 tax increase is an endogenous, spending-driven action. The rise in the tax rate in 1978, however, occurred long after the increase in benefits it was intended to finance. Following our usual procedures, we therefore classify this change as an exogenous, deficit-driven action.

The 1974 *Economic Report* reported that together, the two tax changes at the beginning of 1973 increased revenues in 1973 by $10 billion (p. 77). The date of this increase was 1973Q1. The 1979 *Budget* reported that the increase in the tax rate on January 1, 1978 was expected to increase revenues in fiscal 1978 (which covered October 1, 1977 through September 30, 1978) by $2.2 billion, and in fiscal 1979 (October 1, 1978 through September 30, 1979) by $3.6 billion (p. 58). Our usual approach would be to use the figure for fiscal 1979 as our estimate of the revenue effects beginning in 1978Q1, since fiscal 1979 was the first full fiscal year the higher rate was in effect. However, as described below, the Social Security Amendments of 1977 resulted in a sharp increase in the Social Security tax base on January 1, 1979. This presumably increased the expected revenue effects of the 1978 rate increase on fiscal 1979 revenues considerably. We therefore depart from our usual procedure and take the estimated revenue effect in fiscal 1978, which covered the first three-quarters of calendar 1978, and multiply it by four-thirds to obtain an estimate of the annual revenue effect. This yields a figure of +$2.9 billion beginning in 1978Q1.

Finally, as part of the July amendments, Congress provided for annual cost-of-living increases in Social Security benefits and indexed the Social Security tax base to wages (*Social Security Bulletin*, March 1973, pp. 14-15). The first increase in the tax base under this system occurred at the beginning of 1975. Because the tax increases resulting from indexation merely reflected the growth of nominal wages (most of which stemmed from inflation), we drop these tax increases from our sample entirely.[12]

When using the present value measure, it is appropriate to reclassify the tax change in 1978Q1 as an endogenous, spending-driven change. This change is classified as deficit-driven when we use the change in liabilities as the revenue measure because it occurs more than a year after the spending change that motivated it. But in a framework emphasizing news, the future tax change should be treated as spending-driven. Though the Social Security changes were contained in laws passed in both the third and fourth quarters of 1972, we put the present value estimate in 1972Q3. We do this for two reasons. First, most of the revenue estimates combine the two measures, so it is impossible to separate the two actions. Second, it is likely that the news about the combined tax change occurred primarily when the first measure was enacted.

The changes increased marginal tax rates on low- and middle-income taxpayers. They were legislated as permanent.

[12] Since the tax increases were tied to cost-of-living increases in Social Security benefits, an alternative would be to treat them as endogenous, spending-driven tax changes. Adopting that approach would obviously have no effect on estimates of the impact of exogenous tax changes.

1973 Changes to Social Security

Signed: 7/9/73 and 12/31/73
Change in Liabilities:
  1974Q1 +$4.2 billion (Endogenous; Spending-driven)
Present Value:
  1973Q3 +$4.05 billion (Endogenous; Spending-driven)

Congress approved amendments to the Social Security Act in July and December 1973. Together, the two bills raised the tax base for Social Security from $10,800 to $13,200 effective January 1, 1974 (*Social Security Bulletin*, September 1973, p. 1; April 1974, p. 36). The bills also provided for some future increases in the Social Security tax rate; these provisions were altered by later legislation, however.

The purpose of the tax increase was to pay for higher benefits in 1974 and other increases in Social Security spending. For example, in his statement concerning the signing of the December bill, President Nixon stated, "the increases must be financed largely by an increase in the wage base on which social security payroll taxes are levied" (Statement About Signing a Bill To Increase Social Security Benefits, 1/3/74, p. 1). Similarly, the 1974 *Economic Report* stated, "Social security benefits have been rising rapidly in recent years," and went on to say, "[a]ccompanying the increase in social security benefits has been a rise in the social security payroll tax" (pp. 173-174). We therefore classify the tax increase as an endogenous, spending-driven action.

The 1975 *Economic Report* stated that the increase raised revenues by $4.2 billion at an annual rate (p. 44). The increase occurred on January 1, 1974, or in 1974Q1.

In calculating the present value of the tax change, we date the action in 1973Q3, when the first measure was put into place. We do this for two reasons. First, the revenue estimates combine the two measures, so it is impossible to separate the two actions. Second, it is likely that the news about the combined tax change occurred primarily when the first measure was enacted.

The increase raised marginal tax rates on middle-income taxpayers. It was intended to be permanent.

Tax Reduction Act of 1975

Signed: 3/29/75
Change in Liabilities (excluding retroactive changes):
  1975Q2 –$45.3 billion (Endogenous; Countercyclical)
  1975Q3 +$32.5 billion (Endogenous; Countercyclical)
Change in Liabilities (including retroactive changes):
  1975Q2 –$58.1 billion (Endogenous; Countercyclical)
  1975Q3 +$45.3 billion (Endogenous; Countercyclical)
Present Value:
  1975Q3 –$13.32 billion (Endogenous; Countercyclical)

The Tax Reduction Act of 1975 was a change in taxes that was made to try to return economic growth to normal. In early 1975, growth was weak and expected to remain weak in the absence of changes in policy. The 1975 *Economic Report* stated, "As 1975 begins, … production and employment are declining sharply. … It is quite likely … that the contraction of business activity and rising unemployment will continue for several more months" (p. 19). Likewise, the President's Annual Budget Message to the Congress, Fiscal Year 1976 declared: "It must be clearly understood that these problems are serious and that strong remedies are fully justified. The economy is now in a recession" (2/3/75, p. 2).

The administration therefore proposed a major tax cut "[t]o provide support for the economy"

(1975 *Economic Report*, p. 20). However, the *Economic Report* was explicit that the tax cut would, at best, merely mitigate the expected decline: "The tax cut will not prevent a decline in real output from 1974 to 1975 but it will reduce the extent of the year-over-year decline" (p. 20). Presidential speeches confirm the view that the tax cut was designed to return growth to normal. In his Address Before a Joint Session of the Congress Reporting on the State of the Union, President Ford stated: "Cutting taxes now is essential if we are to turn the economy around. A tax cut offers the best hope of creating more jobs" (1/15/75, p. 2). Likewise, in the Annual Budget Message, he said: "These policies call for decisive action to restore economic growth" and "include a one-time $16 billion tax cut … to stimulate economic recovery" (2/3/75, p. 2). In his Address to the Nation Upon Signing the Tax Reduction Act of 1975, Ford again said: "Our country needs the stimulus and the support of a tax cut and needs it now" (3/29/75, p. 2). He said that though the tax cut was somewhat larger than he originally proposed, "the $23 billion tax reduction is within reason" (p. 1). He mainly lamented that the bill included "a lot of extraneous changes in our tax laws" and said, "This is no way to legislate fundamental tax reforms" (p. 1).

Congressional documents also suggest that the act was motivated by a desire to return growth to normal. The House report gave as the prime motivation for the bill the need "to check the drastic downward slide in our economy and to restore economic growth" (94th Congress, 1st Session, House of Representatives Report No. 94-19, 2/25/75, p. 5). It also stated: "The overall tax cut provided by your committee's bill is larger than the $16 billion tax cut recommended by the administration. However, your committee believes that the larger tax cut is more appropriate in the present situation, because the economic situation has deteriorated and forecasts of future economic activity in absence of remedial action are more pessimistic than at the time the administration presented its recommendations" (p. 8). This suggests that even the cuts beyond what the president proposed were aimed at securing normal, not supranormal growth.

Because the act was designed to stop the decline and return growth to normal, we classify it as an endogenous, countercyclical fiscal action.

Our sources give several figures for the size of the tax cut, all of them quite similar (*Economic Report*, 1976, pp. 48, 50-51; 1977, p. 75; Address to the Nation Upon Signing the Tax Reduction Act of 1975, 3/29/75, p. 1; 1977 *Budget*, p. 44). One very clear statement of the size and timing comes from the 1976 *Economic Report*. It stated: "In all, the Tax Reduction Act of 1975 lowered receipts by around $42 billion at an annual rate in the second quarter of 1975, but most of this drop was temporary. The tax cuts that remained in effect during the last half of 1975 amounted to around $15 billion (annual rate)" (p. 51). Translated into changes at an annual rate, these figures imply a tax cut of $42 billion in 1975Q2 and an increase of $27 billion in 1975Q3. These numbers, however, are for receipts, not liabilities, and do not appear to take into account the fact that the act not only included the rebate of 1974 taxes, but also a retroactive cut to January 1975.

The House report and the Conference report on the bill gave detailed revenue estimates. The final bill included a rebate of $8.125 billion of 1974 taxes (House Report No. 94-19, Table 1, p. 17; *Congressional Record*, 94th Congress, 1st Session, Vol. 121—Part 7, 3/26/75, p. 8880). Since the act was signed at the end of March, we date this as occurring in 1975Q2. At an annual rate, this was an endogenous tax cut of $32.5 billion. The Conference report showed additional net tax cuts in 1975Q2 of $12.8 billion at an annual rate.[13] Because these cuts were retroactive to January 1, 1975, this implies an additional tax cut in 1975Q2 of $12.8 billion. Therefore, there was a total endogenous tax change in 1975Q2 of –$32.5 billion minus $12.8 billion minus $12.8 billion, or –$58.1 billion. Then, in 1975Q3 when the rebate and the retroactive tax cut disappeared, there was an endogenous tax increase of $32.5 billion plus $12.8 billion, or $45.3 billion. These numbers, while somewhat larger than those in the *Economic Report*, are broadly consistent. If the retroactive feature (but not the rebate) is ignored, the tax change would be –$45.3 billion in 1975Q2 and +$32.5 billion in 1975Q3, which is even closer to the

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[13] The table shows total net revenue effects from tax changes of –$20.9 billion. Subtracting off the –$8.1 billion due to the rebate yields –$12.8 billion.

Economic Report numbers.

The House report showed the revenue effects in 1976 as –$1.5 billion, implying a substantial tax increase in 1976Q1 (House Report No. 94-19, Table 1, p. 17). This is consistent with the tax cut being explicitly temporary. However, its provisions were extended and enlarged by the Revenue Adjustment Act of 1975, so the legislated tax increase did not take place.

Almost all the major provisions of the act were scheduled to be temporary. The large majority of the tax reductions took the form of rebates, tax credits, and increases in the standard deduction (1976 *Economic Report*, pp. 50-51). Thus, the changes lowered taxes for most taxpayers by similar amounts, with little impact on marginal tax rates. The act also included a temporary increase in the investment tax credit.

Tax Reform Act of 1976

Signed: 10/4/76
Change in Liabilities:
1976Q4 +$2.4 billion (Exogenous; Long-run)
1977Q1 –$0.8 billion (Exogenous; Long-run)
Present Value:
1976Q4 +$1.61 billion (Exogenous; Long-run)

The tax cuts in the Tax Reduction Act of 1975 were extended for six months by the Revenue Adjustment Act of 1975. They were then extended for another three months by a series of measures in June and September 1976 (1976 Treasury *Annual Report*, pp. 52-54). About half of the cuts were then made permanent by the Tax Reform Act of 1976, and the other half were extended to December 31, 1977. Later legislation made even these temporary cuts permanent. Because the extensions had no effect on liabilities, they do not enter our analysis.

The Tax Reform Act of 1976, however, did include some minor reforms that affected revenues, and so is an action. These reforms included changes in the gift and estate taxes, an increase in the minimum tax, and various measures to close loopholes. The motivation for these changes was clearly improved efficiency and equity. The 1977 *Economic Report* refers to the act as "the first extensive changes in the tax code since 1969" (p. 75). At the signing ceremony, President Ford emphasized that the reforms were "designed to close the loopholes and ensure that each taxpayer bears his or her fair share of the overall tax burden" (Remarks Upon Signing the Tax Reform Act of 1976, 10/4/76, p. 1). The reforms of the estate tax were designed to "liberalize the marital deduction for the transfer of property between spouses, and to provide special relief to the owners of family farms and business" (Statement on Signing the Tax Reform Act of 1976, 10/4/76, p. 1). Economic growth, which was projected to be rapid, but not undesirably fast, was not mentioned as a motivation for the tax reform and revenue-raising provisions (1977 *Economic Report*, p. 36).

Congressional motivation for the reforms appears to be similar. The House report on the estate and gift tax provisions (which began the legislative process as a separate bill) said the changes were designed to: "Provide substantial relief for modest-sized estates, farms and other closely held businesses" and to "[r]emove tax avoidance devices from the present estate and gift tax system" (94th Congress, 2d Session, House of Representative Report No. 94-1380, 8/2/76, p. 3). The Senate report on the entire bill said it was "designed to serve four major purposes. First, it is intended to improve the equity of the tax system …. Second, the committee amendment effects important simplifications of the tax system …. Third, the amendment extends for one additional year the fiscal stimulus provided by the Tax Reduction Act of 1975 …. Fourth, the committee amendment improves the administration of the tax laws, making it more efficient and strengthening taxpayers' rights" (94th Congress, 2d Session, Senate Report No. 94-938, 6/10/76, p. 7).

As with the administration, there was no sense that Congress was making the revenue-raising

reforms to counteract a perceived overheating of the economy. The Committee on Finance referred to the "extremely serious economic situation" and emphasized the need for continuing short-run stimulus to reduce the "unacceptably high" rate of unemployment (Senate Report No. 94-938, p. 3 and p. 16, respectively). The only reference the committee made to the possible need for future fiscal restraint was in the context of the tax cut extension. It stated: "The committee does not believe that a permanent extension of the entire $20 billion in tax reductions now in effect is appropriate at this time. There is uncertainty about just how much excess capacity now exists in the economy, how serious will be the inflation problem in the years ahead" (p. 16). There is no indication, however, that the tax reforms were the margin on which macroeconomic stabilization would be handled.

Because both the president and Congress supported tax reform out of a desire to improve the equity and efficiency of the tax system, we classify this as an exogenous, long-run tax action.

The 1977 *Economic Report* said the reforms (not the tax cut extensions) increased receipts $0.6 billion in 1976 and $1.6 billion in 1977 (p. 75). Since the act only took effect in the last quarter of 1976, this represents an annual rate increase of $2.4 billion in 1976Q4. There is then a decline in taxes of $0.8 billion in 1977Q1. This pattern is consistent with the nature of the law: the increase in the minimum tax and elimination of tax shelters took effect immediately, while the reforms to the estate tax, most of which lowered receipts, took effect later. The revenue estimates from the *Budgets* are roughly consistent with those from the *Economic Report*. The 1978 *Budget* said the reforms included in the act raised receipts $1.5 billion in fiscal 1977 and $1.0 billion in fiscal 1978 (p. 60). The Conference report on the bill gave identical fiscal year revenue estimates (94th Congress, 2d Session, House of Representative Report No. 94-1515, 9/13/76, Appendix B, p. 626).

The tax reform provisions of the law were explicitly permanent. Most of the reforms, such as closing loopholes and eliminating some tax shelters, most likely raised average tax rates. The rise in the minimum tax, however, may have affected the marginal tax rate of some taxpayers. The changes in the estate tax changed incentives for bequests and for keeping family farms and businesses in their historical uses.

Tax Reduction and Simplification Act of 1977

Signed: 5/23/77
Change in Liabilities (excluding retroactive changes):
1977Q3 –$7.0 billion (Exogenous; Long-run)
Change in Liabilities (including retroactive changes):
1977Q3 –$21.0 billion (Exogenous; Long-run)
1977Q4 +$14.0 billion (Exogenous; Long-run)
Present Value:
1977Q2 –$7.10 billion (Exogenous; Long-run)

The motivation for this tax cut was to generate above-normal real growth. The key evidence for this is that the Carter administration believed that the tax cut would cause substantial reductions in the unemployment rate. For example, in transmitting his revisions to the budget submitted by the Ford administration, President Carter stated: "This budget includes the economic stimulus package, which will reduce unemployment and promote steady, balanced economic growth" (Fiscal Year 1978 Budget Revisions Message to the Congress Transmitting the Revisions, 2/22/77, p. 1). Likewise, the 1978 *Economic Report* stated: "Soon after the new Administration came into office, it proposed a series of measures intended to raise the rate of growth in real output in 1977 and 1978 to a pace that would lead to significant reductions in the unemployment rate" (p. 50). The same *Report* said: "the Nation was far from the goals of 'maximum employment, production, and purchasing power' established in the Employment Act of 1946. Progress toward these goals was essential to the achievement of rising living standard and greater equality of income and of opportunity" (p. 35).

The few quantitative assessments provided by the administration also indicate that the goal of the stimulus package was to raise growth to a very high level, not to return growth to normal from a below-normal level. In transmitting the proposal to Congress, Carter stated, "Most economists have projected that, without further stimulus, the economy would grow by an inadequate 4.5-5% in 1977" (Economic Recovery Program—Message to the Congress, 1/31/77, p. 3). Thus, the tax cut was aimed at achieving growth rates well above a clearly brisk level.

Congressional documents paint a similar picture. The House report stated: "Total stimulus materially below [the administration's proposal of] $16 billion … would be inadequate in ensuring that economic growth in 1977 and 1978 would proceed rapidly enough to reduce unemployment" (95th Congress, 1st Session, House of Representatives Report No. 95-27, 2/24/77, Part 1, p. 8). This suggests that Congress believed the proposed stimulus package would generate growth fast enough to reduce unemployment.

In many ways, this tax cut is more like the Kennedy-Johnson 1964 tax cut than the Reagan or Bush tax cuts. The tax cut was clearly designed to raise growth above normal and by doing so reduce unemployment. But, the mechanism was thought to be a demand-side channel, not a supply-side, incentive-driven channel. For example, the 1978 *Economic Report* stated: "A 2-year program was needed for a continuing improvement in sales and income" (p. 51). The Carter administration appears to have wanted to generate a temporary boom to get the unemployment rate down.

Because the tax cut was designed to raise growth above normal and reduce the unemployment rate, we classify it as an exogenous tax change to foster long-run growth.

Since the cut was enacted more than halfway through the second quarter of 1977, we date it as occurring in 1977Q3. The cut was retroactive to January 1, 1977. The 1978 *Economic Report* stated that the cut was expected to reduce receipts by $4.9 billion in calendar 1977 and $9.9 billion in calendar 1978 (p. 52). The reason the effects in the two years were so different was that withholding was not fully adjusted in 1977, so that approximately $2.1 billion of taxpayers' reduced liabilities on 1977 income appeared as higher refunds and lower payments when they filed their 1977 tax returns in 1978 (1979 *Budget*, p. 50). Thus a better estimate of the impact of the bill on 1977 liabilities is a reduction of $4.9 billion plus $2.1 billion, or $7.0 billion. We therefore estimate that the bill lowered taxes by $7.0 billion at an annual rate beginning in 1977Q3, retroactive to 1977Q1. This corresponds to a cut of $21.0 billion at an annual rate in 1977Q3 followed by a rise of $14.0 billion at an annual rate in 1977Q4. Not accounting for the retroactive piece, there was just a cut of $7.0 billion at an annual rate in 1977Q3.

The main component of the act was a permanent increase in the standard deduction. There were also some temporary tax credits for 1977 and 1978. In addition to the tax cut, the administration's stimulus package also included some spending increases. According to the 1978 *Economic Report*, the spending increases ultimately passed included "the expansion of public works, public service employment, and other employment and training programs" (p. 52). It gave estimates of the expenditure increase related to the stimulus package of $1.2 billion in 1977 and $7.0 billion in 1978 (p. 52).

Social Security Amendments of 1977

Signed: 12/20/77
Change in Liabilities:

1979Q1	+$8.8 billion	(Exogenous; Deficit-driven)
1980Q1	+$1.7 billion	(Exogenous; Deficit-driven)
1981Q1	+$17.2 billion	(Exogenous; Deficit-driven)
1982Q1	+$1.5 billion	(Exogenous; Deficit-driven)

Present Value:

1977Q4	+$24.34 billion	(Exogenous; Deficit-driven)

The motivation for the changes to the Social Security Act enacted in 1977 was concern about the

solvency of the Social Security system. The Disability Insurance Trust Fund and the Old Age and Survivors Trust Fund were both projected to be exhausted within a few years, and projections suggested that the system faced a substantial long-term deficit as well (*Social Security Bulletin*, March 1978, p. 4). When Carter first submitted his proposals to change Social Security, he stated that their purpose was to "restore the financial integrity of the Social Security system" (Social Security System Message to the Congress, 5/9/77, p. 1). In signing the bill, he stated that it would ensure "that the social security system will be financially sound well into the next century" (Social Security Amendments of 1977 Statement on Signing S. 305 Into Law, 12/20/77, p. 1). Similarly, the 1978 *Economic Report* reported: "The Social Security Amendments of 1977 were designed primarily to prevent the assets of the OASDI trust funds from being depleted in the next few years and to eliminate most of the long-range deficit. Since the Congress has always believed that the social security system should be fully financed by earmarked payroll taxes, substantial increases in OASDHI taxes were necessary" (p. 235).

And indeed, Congress supported the tax increases to ensure the financial soundness of the system. For example, the House report on the bill stated, "In order to eliminate the short-range deficit due to recent and current economic experience and to reduce the longer-range deficit due to demographic shifts and disability experience, the committee bill includes changes in social security tax rates for employees, employers, and the self-employed, and increases in the contribution and benefit base for employees, employers, and the self-employed" (95th Congress, 1st Session, House of Representatives Report No. 95-702, Part 1, 10/12/77, pp. 17-18).

The bill changed the growth rate of Social Security spending, mainly through correction of a feature of the indexing provision adopted in 1972 that had the unintended effect of causing benefits to grow more rapidly than wages. It did not call for any immediate substantial changes in spending, however (1978 *Economic Report*, pp. 235-236; *Social Security Bulletin*, March 1978, pp. 12-17). Since the tax changes were not motivated by either changes in spending or concerns about the cyclical state of the economy, but rather by a concern about the long-run solvency of the Social Security system, we classify them as exogenous, deficit-driven actions.

The amendments increased revenues in two ways. First, the scheduled path of the Social Security tax rate was revised upward. The tax rate was increased substantially in January 1981, and modestly in January 1979 and January 1982.[14] Second, the amendments called for the Social Security tax base to increase more rapidly in 1979, 1980, and 1981 than it would under the usual indexing formula. In 1979, the additional increase was substantial, while in the other two years it was small (*Social Security Bulletin*, March 1978, pp. 17-18).

The 1980 *Budget* reported that the increase in the Social Security tax rate on January 1, 1979 was expected to increase revenues by $1.1 billion in fiscal 1979 and $1.6 billion in fiscal 1980 (p. 75). Since fiscal 1980 was the first full fiscal year the higher rate was in effect, our usual procedure would be to use that figure as our estimate of the revenue effect beginning in 1979Q1. But because the amendments also provided for an unusual increase in the Social Security tax base in January 1980, there is reason to be concerned that this procedure could substantially overstate the revenue effects of the rate increase in 1979. As with the January 1, 1978 rate increase called for by the 1972 changes to Social Security (where a similar issue arises), we therefore take the figure of $1.1 billion for fiscal 1979, which covered the first three-quarters of calendar 1979, and multiply it by four-thirds to obtain an estimate of the revenue effects at an annual rate. This implies a tax increase of $1.5 billion beginning in 1979Q1. Note that this is in fact quite similar to the estimate one would obtain using the fiscal 1980 figure.

The increase in the tax rate in January 1981 is not complicated by an unusual rise in the base. We therefore use the estimate from the 1982 *Budget* that in its first full fiscal year (fiscal 1982), the increase would raise revenue by $14.7 billion (p. 83). That is, we estimate that there was a tax increase of $14.7 billion in 1981Q1. Similarly, we estimate the impact of the rise in the tax rate on January 1, 1982 using

[14] The amendments also called for further increases in 1985, 1986, and 1990. These changes were modified by the Social Security Amendments of 1983. We therefore postpone our discussion of those changes to our discussion of those amendments.

the estimate from the 1983 *Budget* for the effect of the change in its first full fiscal year (p. 4-18). This implies a tax increase of $1.5 billion in 1982Q1.

To estimate the revenue effects of the additional increases in the base called for in the bill, we begin with the estimates in the *Budgets* for the revenue effects of the base increases in their first full fiscal year. For example, the 1980 *Budget* reported that the January 1, 1979 increase in the base was projected to raise revenues by $9.5 billion in fiscal 1980 (p. 75). We then subtract off the portion of the increase that would have been expected from the usual indexation. In the case of the 1979 increase, for example, the 1978 *Economic Report* indicated that $1200 of the $5200 increase would have occurred under normal indexation (p. 236). Thus, we estimate the revenue effects of the additional increase in the base resulting from the amendments as $4000/$5200 times $9.5 billion, or $7.3 billion, at an annual rate beginning in 1979Q1. This procedure yields estimates of the 1980 and 1981 base increases of $1.7 billion in 1980Q1 and $2.5 billion in 1981Q1.[15] Combining our estimates of the effects of the rate and base increases gives overall tax increases of $8.8 billion in 1979Q1, $1.7 billion in 1980Q1, $17.2 billion in 1981Q1, and $1.5 billion in 1982Q1.

The tax changes increased marginal tax rates on low- and middle-income taxpayers. They were legislated as permanent.

Revenue Act of 1978

Signed: 11/6/78
Change in Liabilities:
1979Q1 –$18.9 billion (Exogenous; Long-run)
Present Value:
1978Q4 –$18.50 billion (Exogenous; Long-run)

The motivation for this tax cut was a desire to raise real growth from normal to above normal. The administration was quite explicit that in the absence of a tax cut, growth would slow to relatively normal levels. The 1978 *Economic Report* stated: "the longer-term prospects for economic growth would become increasingly poor. Because of the fiscal drag imposed by rising payroll taxes and inflation, economic growth would slow substantially in late 1978, and fall to about 3½ percent in 1979. The unemployment rate would stop declining and might begin to rise again" (pp. 11-12). Clearly, at the time that the tax reduction was proposed, the president felt that growth would be roughly equal to the growth rate of potential output without additional fiscal stimulus. As the quotation suggests, fiscal drag related to bracket creep and rising social security taxes was one reason for the predicted return to more normal rates of growth. However, a rise in interest rates and a return of the saving rate to its historic normal were also given as reasons that personal consumption spending and housing, two sectors seen as leading the recovery "cannot be counted on to sustain above-trend growth in total demand" (*Economic Report*, 1978, p. 73).

The tax cut was proposed to raise growth above its predicted (relatively normal) path. The 1978 *Economic Report* said: "With the reductions in taxes I have proposed, …, the economy should grow by 4½ to 5 percent in both 1978 and 1979. … Unemployment would therefore continue to fall" (p. 12). The same numbers and motivation are given in President Carter's speech announcing the program (Tax Reduction and Reform Message to the Congress, 1/20/78, p. 1). Similarly, in the Budget Message to the Congress Transmitting the Fiscal Year 1979 Budget, the president stated that the tax cut was necessary to "ensure a vigorous economy, a declining unemployment rate, a strong expansion of private investment" (1/20/78, p. 2).

[15] The data for the revenue effects of the increases in their first full fiscal year are from the 1981 *Budget* for the 1980 increase (p. 71), and the 1982 *Budget* for the 1981 increase (p. 83). The data for the expected increases under normal indexation are from the 1978 *Economic Report* (p. 236).

Congressional motivation for the bill was very similar to that of the administration. Like the president, Congress felt that in the absence of further tax cuts, economic growth would slow to normal and this would not be adequate to ensure further reductions in unemployment. The House report on the bill stated:

> Currently, economic forecasts made by government and private economists generally are in agreement that the economic recovery cannot be sustained at its present rate without new tax cuts. … Gross national product increased at an annual rate of 7.4 percent in the second quarter of 1978, but when the first quarter decrease and the second quarter increase are averaged, the result is an increase in the first half of 1978 at an annual rate of 3.6 percent, compared to 5.7 percent in 1976 and 4.9 percent in 1977. The current growth rate is not sufficient to sustain the economic recovery while also leading to additional decreases in the rate of unemployment (95th Congress, 2d Session, House of Representatives Report No. 95-1445, 8/4/78, pp. 9-10).

There is no evidence that the Ways and Means Committee felt that a recession was in the offing; it merely felt that growth would fall from its very high levels in 1976 and 1977 to more normal levels. The tax cut was designed to continue the abnormally high rates of growth. The House report also gave other motivations for the bill. It emphasized that "[s]everal of the provisions of the bill are designed to improve the effect of the tax system on economic incentives" (p. 11). It also stressed the need to improve fairness (p. 12).

Because the key motivation for the tax cut was to generate abnormal growth, we classify it as an exogenous, long-run action.

The revenue effects of the Revenue Act of 1978 were of moderate size. According to the 1979 *Economic Report*: "The size of the tax bill passed by the Congress is close to this request with a stimulus of \$18.9 billion in 1979" (p. 93). This estimate of the revenue effects is largely confirmed by the 1980 *Budget*. This document, which was sent to Congress on January 22, 1979, reported liabilities resulting from the Revenue Act of 1978 to be –\$20.6 billion in calendar year 1979 (p. 62).[16] The 1979 Treasury *Annual Report* reported revenue effects of –\$21.3 billion in calendar 1979 (p. 51). CBO documents from July 1978 give a similar estimate (see CBO, Statement of Alice M. Rivlin, Director, Congressional Budget Office, Before the Committee on the Budget, United States Senate, July 26, 1978, p. 12). Because the revenue estimate from the *Economic Report* is very clear and not substantially different from those in other sources, we take that as our measure. The bill was enacted November 6, 1978 and took effect January 1, 1979 (see 1980 *Budget*, p. 62). Therefore, this act provided for a tax reduction of \$18.9 billion occurring in 1979Q1.

Of the reduction in revenues called for by the legislation, roughly two-thirds took the form of a permanent reduction in personal taxes (1979 *Economic Report*, pp. 93-94). This reduction in personal taxes came from a lowering of scheduled tax rates and a rise in the personal exemption. Therefore, it lowered both marginal and average tax rates. Most of the remaining one-third of the tax cut took the form of a reduction in corporate tax rates, with the marginal rate on corporate income between \$50,000 and \$75,000 being cut the most. Capital gains taxes were also reduced somewhat by the 1978 action. The tax changes were legislated to be permanent.

Crude Oil Windfall Profit Tax Act of 1980

Signed: 4/2/80
Change in Liabilities:
1980Q2 +\$8.2 billion (Exogenous; Long-run)

[16] These estimates specifically exclude the effect of making certain previous temporary tax provisions permanent.

1981Q1 +$4.1 billion (Exogenous; Long-run)
1982Q1 +$4.1 billion (Exogenous; Long-run)
Present Value:
1980Q2 +$15.48 billion (Exogenous; Long-run)

The Carter administration began decontrolling domestic crude oil prices in June 1979, and decontrol was scheduled to be completed by October 1, 1981. Decontrol, combined with high and rising world oil prices, was likely to lead to very large profits for American oil companies. The administration proposed taxing these windfall profits at a high rate and using the revenues to help low income consumers and to encourage alternative energy sources. In the message to Congress proposing the tax, President Carter stated: "In order to prevent oil producers from reaping excessive profits from decontrol a windfall profits tax is proposed" (Windfall Profits Tax and Energy Security Trust Fund Message to the Congress, 4/26/79, p.2). Likewise, in a statement to reporters the same day, Carter said: "A windfall profits tax is the only thing that stands between the oil companies and a huge bonanza of unearned, unnecessary, and unjustified profits" (Windfall Profits Tax and Energy Security Trust Fund Remarks on Signing the Message to the Congress, 4/26/79, p. 1). The rhetoric suggests that some of the motivation for the tax was simply an equity concern: oil companies should not profit tremendously from government actions and international price increases. Indeed, in his remarks on signing the bill a year later, Carter emphasized this motivation when he referred to the act as "this fair and equitable law" (Crude Oil Windfall Profit Tax Act of 1980 Remarks on Signing H.R. 3919 Into Law, 4/2/80, p. 3).

The president also stressed using the revenues for energy-related purposes. For example, the 1980 *Economic Report* stated: "The windfall profits tax I have proposed will capture a significant portion of these windfalls for public use" (p. 10). In his Windfall Profits Tax and Energy Security Trust Fund Message to the Congress, the president proposed putting the revenues into a trust fund to ensure that they would be used for three major purposes: "to provide assistance to low-income households who can least afford energy price increases; to increase funding for mass transit; and to undertake a major program of new energy initiatives and investments which will permit us to develop critically needed alternatives to imported oil" (4/26/79, p. 1). However, as passed, the law did not establish a tight link between the tax increase and increased spending. The House report on the bill specifically stated: "Spending from the trust fund will require future legislation to specify the precise purposes of the trust fund and then the usual authorization and appropriations bills" (96th Congress, 1st Session, House of Representatives Report No. 96-304, 6/22/79, p. 8). Furthermore, in his signing statement, the president acknowledged that "[t]he legislation gives us guidance that a substantial portion of the tax, 60 percent, might be used for income tax reductions, or … to reduce the national debt" (Crude Oil Windfall Profit Tax Act of 1980 Remarks on Signing H.R. 3919 Into Law, 4/2/80, pp. 2-3). This strongly suggests that the tax increase was not passed because of the spending increase, and indeed, need not have resulted in increased spending. Furthermore, the timing of any additional spending was vague and potentially far in the future.

Congress's motivation for the bill appears to have been similar to that of the administration. If anything, equity concerns may have been more important to Congress. The House report on the bill stated:

> The revenues resulting from these higher prices, however, would provide income to oil producers far in excess of what most of them originally anticipated when they drilled their wells and in excess of what they might now be expected to invest in energy production. Indeed, some producers are now using their excess revenues to acquire unrelated businesses.
>
> Thus, the committee believes that the additional revenues received by oil producers and royalty owners, both as a result of decontrol of oil prices and as a result of increases in world oil prices substantially above those prevailing in 1978, are an appropriate object of taxation (House Report No. 96-304, p. 7).

While the Ways and Means committee supported using the new tax revenues to encourage innovation and conservation, it viewed the tax increase as primary. The report stated: "the committee believes that it is important to pass the windfall profit tax expeditiously, without any delay resulting from a detailed analysis of precisely how the money should be spent" (p. 8).

Current and projected macroeconomic conditions were not mentioned by either the administration or the Congress as a motivation for the bill. Around the time that the bill was under consideration, the administration believed that a mild recession was likely. However, the 1980 *Economic Report* predicted, "By year-end our economy should be growing again, and the pace of expansion is likely to increase in 1981" (p. 5). Thus, it seems likely that the administration felt that growth would be relatively normal by the time the windfall profit tax took effect.

Because the tax increase was passed out of a desire to limit oil company profits, and was only loosely tied to spending increases, we classify it as exogenous. Because it was not for deficit reduction, we classify it as being motivated by long-run concerns.

The estimates of the revenue effects increased substantially between the time the bill was proposed and the final conference bill, both because the market price of oil rose rapidly and because the size of the tax increased. In his speech proposing the bill, Carter said that the net revenue effect would be +$0.2 billion in fiscal 1980; +$1.3 billion in fiscal 1981; and +$2.0 billion in fiscal 1982 (Windfall Profits Tax and Energy Security Trust Fund Message to the Congress, 4/26/79, p. 6). The House report just three months later had net effects roughly three times as large (House Report No. 96-304, p. 11). By the time of the Conference report in March 1980, the calendar-year net revenue effects were +$6.118 billion in 1980; +$12.218 billion in 1981; and +$16.337 billion in 1982 (97th Congress, 2^{d} Session, House of Representatives Report No. 96-817, 3/7/80, p. 164). These numbers are very similar to those in the 1982 *Budget* (p. 72). As with many of the tax changes in this period, we use the numbers from the Conference report as our final estimates.

The bill was passed in April 1980, so we date the first tax change in 1980Q2.[17] Since the tax was only in effect for ¾ of 1980, we multiply the 1980 revenue estimate by 4/3 to convert it to an annual rate (4/3 · $6.118 billion equals $8.16 billion). Estimated tax revenues rose in 1981 and 1982 because oil prices were scheduled to be decontrolled gradually. For lack of a better alternative, we treat the tax increases that occurred steadily throughout these two years as occurring in 1981Q1 and 1982Q1. The change in tax revenues was $12.218 billion minus $8.16 billion, or 4.06 billion in 1981Q1; and $16.337 billion minus $12.218 billion, or $4.12 billion in 1982Q1. Tax revenues were projected to continue rising after 1982 because of assumed rises in the price of oil. Since these increases did not involve changes in policy, we ignore them in our estimates.

The tax was scheduled to phase out after aggregate net receipts exceeded $227.3 billion (1982 *Budget*, p. 66). While revenues for the first two years of the tax were similar to anticipated, revenues in later years were lower than expected because of declining oil prices and some changes in the legislation contained in Economic Recovery Tax Act (CBO, Revenue Effects of the Crude Oil Windfall Profit Tax Act, May 1983, pp. 1-2). By the time the tax was eliminated in 1988, it was raising very little revenue. As a result, the end of the tax had virtually no effect on liabilities, and so does not enter our analysis.

The windfall profit tax was, in fact not a tax on profits at all, but an excise tax on domestic crude oil imposed at the wellhead. The tax was paid on the difference between the actual selling price and the May 1979 controlled price (adjusted for inflation). As discussed above, the tax was temporary.

[17] The tax was retroactive to March 1, 1980. Because the retroactive period was so short, we ignore it in our revenue calculations.

Economic Recovery Tax Act of 1981

Signed: 8/13/81
Change in Liabilities (excluding retroactive changes):

1981Q3	–$8.9 billion	(Exogenous; Long-run)
1982Q1	–$48.8 billion	(Exogenous; Long-run)
1983Q1	–$57.3 billion	(Exogenous; Long-run)
1984Q1	–$36.1 billion	(Exogenous; Long-run)

Change in Liabilities (including retroactive changes):

1981Q3	–$26.7 billion	(Exogenous; Long-run)
1981Q4	+$17.8 billion	(Exogenous; Long-run)
1982Q1	–$48.8 billion	(Exogenous; Long-run)
1983Q1	–$57.3 billion	(Exogenous; Long-run)
1984Q1	–$36.1 billion	(Exogenous; Long-run)

Present Value:

1981Q3	–$125.90 billion	(Exogenous; Long-run)

Despite its name, the Economic Recovery Tax Act was taken largely for ideological or long-term reasons, not to return economic growth to normal. A major tax cut had been a centerpiece of Reagan's presidential campaign. In his acceptance speech at the Republican National Convention in July 1980, Reagan said: "I have long advocated a 30 percent reduction in income tax rates" (Ronald Reagan Nomination Acceptance Speech, 7/17/80, p. 4). That the motivation for this was ideology and long-run growth can be seen in Reagan's statement in the same speech that "[w]e are taxing ourselves into economic exhaustion and stagnation, crushing our ability and incentive to save, invest, and produce. This must stop. We must halt this fiscal self-destruction" (p. 4). The fact that Reagan's Democratic opponent, Jimmy Carter, ran against the tax cut and said it would lead to "fierce inflation for all of us" is evidence that current economic conditions were not a key driving force (Remarks Accepting the Presidential Nomination at the 1980 Democratic National Convention, 8/14/80, p. 6).

Early presidential speeches in favor of the tax cut stressed the ideological motivation of reducing the role of the federal government. In his Address to the Nation on the Economy in February 1981, Reagan stated: "the audit presented to me found government policies of the last few decades responsible for our economic troubles" (2/5/81, p. 1). He went on to say: "Over the past decades we've talked of curtailing government spending so that we can then lower the tax burden. … Well, you know, we can lecture our children about extravagance until we run out of voice and breath. Or we can cure their extravagance by simply reducing their allowance" (p. 2). Similarly, in April 1981, Reagan stated: "High taxes and excess spending growth created our present economic mess …. The answer to a government that's too big is to stop feeding its growth" (Address Before a Joint Session of the Congress on the Program for Economic Recovery, 4/28/81, p. 2).

The administration repeatedly emphasized the need to focus on the long-run impact of policy. The 1982 *Economic Report* stated, "we have set in place a fundamental reorientation of our tax laws. … [W]e have significantly restructured it to encourage people to work, save, and invest more" (p. 7). It said that the tax act was part of a program "designed to increase long-term economic growth and to reduce inflation. Uniformly favorable near-term effects were not expected" (p. 24). It also stated: "This Administration intends to place emphasis on long-run policies. For example, the Economic Recovery Tax Act of 1981 cuts tax rates over a 3-year period, after which the personal income tax structure will be indexed so that inflation will not increase marginal tax rates on real income" (p. 44). That the tax cuts were phased in over three years does suggest that they were part of a long-term strategy, not an emergency response to current and prospective short-run conditions. Reagan emphasized this point in his Address Before a Joint Session of the Congress Reporting on the State of the Union just shortly after the bill was signed. He stated: "We have an economic program in place, completely different from the artificial quick fixes of the past" (1/26/82, p. 2).

In speeches as president, Reagan often referred to bad economic conditions and the need for recovery. But, it is clear that he had in mind long-term ills and the need for fundamental change, not the current recession and short-term stimulus. In his first inaugural address, Reagan said, "It is time to reawaken this industrial giant, to get government back within its means, and to lighten our punitive tax burden" (1/20/81, p. 2). In an address to Congress in February 1981, Reagan said the tax cut "will expand our national prosperity, enlarge national incomes, and increase opportunities for all Americans." The president also stated that the program would not be inflationary because it would greatly stimulate real growth (Address before a Joint Session of the Congress on the Program for Economic Recovery, 2/18/81, p. 4). A White House report issued in conjunction with the president's address said: "The Federal Government, through tax, spending, regulatory, and monetary polices, has sacrificed long-term growth and price stability for ephemeral short term goals" (White House Report on the Program for Economic Recovery, 2/18/81, p. 2). It also said: "the tax system has been a key cause of our stagnation. Restoring the proper incentives will make a major contribution to the long-run vitality of our economy" (p. 3).

Congressional motivation for the tax cut is somewhat more ambiguous than that of the administration. The House report on the original bill (entitled the Tax Incentive Act of 1981) certainly stressed long-run growth and improving incentives. The opening paragraph said that the bill was designed to: "encourage economic growth through reductions in individual income tax rates, the expensing of depreciable property, incentives for small businesses, and incentives for savings" (97th Congress, 1st Session, House of Representatives Report No. 97-201, 7/24/81, p. 1). In discussing the many changes in business taxes, the report stated: "The intent of the committee has been to structure tax reductions for stimulating saving, investment, and productivity that are appropriate in the different circumstances under which different businesses operate. Long-term economic growth requires the effort of all persons and all businesses" (p. 18). Philosophical views about the appropriate size of government and tax burdens also appear to have been an important motivating factor for Congress. The report discussed the rise in taxes as a share of income and stated: "The committee believes that the tax burden on individuals has become excessive" (p. 16). In addition to these long-run and philosophical motivations, the report also mentioned current economic conditions as a justification for tax cuts. It said: "For the third consecutive year, the rate of economic growth is likely to be below its postwar average. The committee believes that a major tax cut is essential to a solid economic recovery" (p. 16). However, even while discussing short-run conditions, the House report seemed to stress longer-run concerns. For example, it stated: "Multiyear cuts give stronger incentives for individuals to make the long-run commitments that sustain economic growth" (p. 17).

On net, we feel that the motivation for this tax cut was primarily a desire to shrink the size of government and to increase long-run economic growth by improving incentives. Current economic conditions played virtually no role in the administration's support for the tax cut, and, at most, a secondary role in Congress's thinking. We therefore classify the action as an exogenous, long-run tax change.

The *Economic Reports* for this period contain few revenue estimates. However, a number of other sources give detailed estimates, and these estimates are remarkably consistent. For example, fiscal-year estimates from a White House report before the legislation was passed, the 1983 *Budget*, CBO projections, and both the House report on the proposed bill and the Conference report on the final bill give very similar estimates of the decline in tax receipts (White House Report on the Program for Economic Recovery, 2/18/81, pp. 7-8; 1983 *Budget*, pp. 4-9 through 4-10; CBO, Projecting Federal Tax Revenues and the Effect of Changes in Tax Law, 12/98, p. 16; House Report No. 97-201, p. 20; 97th Congress, 1st Session, House of Representatives Report No. 97-215, p. 289). The initial House report on the proposed bill and the 1983 budget also give calendar year estimates, and these are very similar to each other (1983 *Budget*, pp. 4-9 through 4-10, House Report No. 97-201, p. 21). Since the *Budget* numbers are for the final bill, we use those as our revenue estimates.

The bill was passed in mid-August 1981, so we date the first tax cut in 1981Q3. The 1983 *Budget* reports that liabilities declined \$8.9 billion in calendar 1981 (p. 4-10). The first tax cut was retroactive to January 1, 1981. Therefore, there was an effective tax cut of $3 \cdot$ \$8.9 billion in 1981Q3.

The end of the retroactive component implied a tax increase of 2 · $8.9 billion in 1981Q4. The law called for additional tax cuts in 1982 and 1983. While the nominal date of these tax cuts were July 1982 and July 1983, rates fell on January 1 of these years (but by only ½ of the stated cut in July). There was then a further cut on January 1, 1984 when the lower rate became effective for an entire year. The 1983 *Budget* reports a cumulative reduction of tax liabilities of –$57.7 billion in 1982; –$115.0 billion in 1983; and –$151.1 billion in 1984 (p. 4-10).[18] This implies a change in tax liabilities of –$48.8 billion in 1982Q1; –$57.3 billion in 1983Q1; and –$36.1 billion in 1984Q1. If one ignores the retroactive component of the 1981 cut, there is a tax cut of $8.9 billion in 1981Q3, no tax increase in 1981Q4, and then the same additional tax cuts in later years.

The central component of the tax cut was a permanent, across-the-board reduction in marginal tax rates in three steps. New depreciation guidelines and a reduction in corporate tax rates reduced business taxes as well. In addition to the tax cut, Congress passed some spending cuts at the same time as part of the president's overall economic program. However, the tax changes were much larger than the spending changes. In remarks made at the signing of ERTA in 1981, President Reagan said that spending would be cut $130 billion over the next three years, while taxes would be reduced $750 billion over the next five years (Remarks, 8/13/81, p. 1).

Tax Equity and Fiscal Responsibility Act of 1982

Signed: 9/3/82
Change in Liabilities:
1983Q1 +$26.4 billion (Exogenous; Deficit-driven)
Present Value:
1982Q3 +$24.85 billion (Exogenous; Deficit-driven)

The motivation for this tax increase was deficit reduction and increased fairness. The fiscal action was clearly not taken because policymakers felt the economy was overheating. Both the 1982 and 1983 *Economic Reports* make it clear that real GNP growth was weak and predicted to remain so for a while longer (1982, p. 25, and 1983, pp. 20-23).

Rather, the federal deficit had increased dramatically in 1982 and the Reagan Administration agreed to a tax increase to try to achieve a deficit reduction plan. The 1982 and, especially, 1983 *Economic Reports* contain numerous references to the harm of large budget deficits, particularly their adverse effects on capital formation and long-run growth (1982, pp. 95-96; 1983, pp. 26-28). In his April 1982 Address to the Nation on the Fiscal Year 1983 Federal Budget, Reagan reviewed the budget projections and stated: "Not only must those deficits be reduced, they must show a decline over the next 3 years" (4/29/82, p. 2). He also stated: "The most essential thing is to send a message to the money market that we, Democrats and Republicans alike, can agree on reducing the deficit and continuing to hold down inflation" (p. 3). In August, Reagan stated: "For many months now we've been working to get a compromise budget that would further reduce spending and thus reduce the deficits" (Address to the Nation on Federal Tax and Budget Reconciliation Legislation, 8/16/82, p. 2). He also stated, "I support it [TEFRA] because it will, when combined with our cuts in government spending, reduce interest rates and put more Americans back to work again" (Address, 8/16/82, p. 1). Reagan, however, emphasized that the output benefits would come in the long run. He stated: "Now, there won't be a sudden boom or upsurge. But slowly and surely, we'll have a sound and lasting recovery based on solid values and increased

[18] The 1983 *Budget* shows liabilities declining further in calendar 1985 and 1986. These declines were due to projected income growth and to further accelerations in the accelerated cost recovery system (ACRS) scheduled for 1985 and 1986. Because the accelerations in ACRS for 1985 and 1986 were repealed by the Tax Equity and Fiscal Responsibility Act of 1982, we do not include the projected tax cuts in 1985 and 1986 in our estimates of the effect of Economic Recovery Tax Act of 1981.

productivity and an end to deficit spending" (p. 3).

A key component of the 1982 tax action was a reduction in the tax benefits of the investment tax credit and the accelerated cost recovery system. It had become clear that some of the provisions in ERTA 1981 were leading to larger than intended tax cuts for business (see 1985 *Economic Report*, p. 26). Reagan stated in April 1982: "Some regulations have been regulated or interpreted in such a way as to provide tax advantages which were never intended" (Address to the Nation on the Fiscal Year 1983 Federal Budget, 4/29/82, p. 2). In August, Reagan referred to the bill as "[p]ossibly … the greatest tax reform in history" and emphasized that many of the reforms were "a matter of simple fairness" (Address to the Nation on Federal Tax and Budget Reconciliation Legislation, 8/16/82, p. 1 and p. 2). He summed up the measure saying: "So, more than 80 percent of the tax bill is not new tax at all, but is better collecting and correcting of flaws in the system" (8/16/82, p. 2).

Congressional motivation for the tax increase was very similar to that of the administration. The Senate report on the bill gave four principal reasons for the tax increase:

> to raise revenue as part of an effort to narrow the unacceptably large budget deficits which would result from a continuation of current spending and tax policies, to ensure that all individuals and businesses pay a fair share of the tax burden, to reduce the distortions in economic behavior that result from the present tax system, and to increase the extent to which those responsible for specific Federal Government spending pay the costs of that spending (97th Congress, 2d Session, Senate Report No. 97-494, Vol. 1, 7/12/82, p. 96).

In discussing the need to reduce the deficit, the Finance Committee made it clear that the tax increase was not motivated by any near-term fear of overheating. Indeed, it specifically cited the current recession as one source of the large current deficit (p. 96). The committee was particularly concerned about the long-term consequences of large budget deficits. It cited the "very high interest rates" and the "costs of servicing what would become a crushing burden of the national debt" (p. 96).

Because the tax increase was taken to reduce the deficit and improve fairness, not to achieve a return to normal economic growth, we classify it as exogenous. Since concern over the deficit appears to have been the primary motivation, we classify it as a deficit-driven tax change.

In his speech on August 16, 1982, Reagan said the bill increased taxes by $99 billion over three years and cut spending by $280 billion over three years (Address to the Nation on Federal Tax and Budget Reconciliation Legislation, p. 2). So, this is a time when spending changes may have been quite substantial and correlated with the tax change. A crude annualization of Reagan's number suggests a tax increase of $33 billion in 1983Q1. CBO (Baseline Budget Projections for Fiscal Years 1984-1988, 2/83, p. 28), the 1984 *Budget* (p. 4-4), and the Conference report on the bill all give very similar fiscal year revenue effects from the act. The Conference report shows total revenue increases from all of the provisions of $17.959 billion in fiscal 1983; $37.664 billion in fiscal 1984; and $42.698 billion in fiscal 1985 (97th Congress, 2d Session, House of Representatives Report 97-760, 8/17/82, p. 691). Part of these estimated revenue effects were due to increased compliance and enforcement, rather than genuine tax changes. The Conference report estimates these compliance and enforcement effects to be: $5.465 billion in fiscal 1983; $11.269 billion in fiscal 1984; and $11,060 billion in fiscal 1985. Because estimates of these compliance and enforcement effects are inherently somewhat speculative, we exclude them from the final estimates. This results in a change in tax liabilities of $12.494 billion in fiscal 1983; $26.395 billion in fiscal 1984; and $31.638 in fiscal in 1985. While some of the tax changes were phased in, the majority of them took effect on January 1, 1983. Therefore, we date the action in 1983Q1. Because we lack calendar-year estimates, we follow our usual procedure of taking the revenue effect in the first full fiscal year for which the law was in effect (1984). This implies an exogenous tax increase of

$26.4 billion in 1983Q1.[19]

The Tax Equity and Fiscal Responsibility Act of 1982 made numerous changes in the tax law. In addition to the change in depreciation rules, the law changed leasing rules, increased the alternative minimum tax, reduced the medical deduction, and raised excise taxes. All of the changes were legislated to be permanent.

<u>Social Security Amendments of 1983</u>

Signed: 4/20/83
Change in Liabilities:

1984Q1	+$12.1 billion	(Exogenous; Deficit-driven)
1985Q1	+$8.8 billion	(Exogenous; Deficit-driven)
1986Q1	+$4.2 billion	(Exogenous; Deficit-driven)
1988Q1	+$15.5 billion	(Exogenous; Deficit-driven)
1990Q1	+$10.3 billion	(Exogenous; Deficit-driven)

Present Value:

1983Q2	+$37.30 billion	(Exogenous; Deficit-driven)

In April 1983, acting on recommendations of the National Commission on Social Security Reform, Congress enacted major changes to the Social Security system. The motivation for the changes was concern about the soundness of the system. As in 1977, the Social Security trust fund was projected to be exhausted within a few years, and the system faced a large projected long-term deficit (*Social Security Bulletin*, July 1983, p. 5). In announcing his appointments to the Reform Commission, President Reagan stated that its goal was to "propose realistic, long-term reforms to put social security back on a sound financial footing" (Statement Announcing the Establishment of the National Commission on Social Security Reform, 12/16/81, p. 1). The 1983 *Economic Report* said, "It is critically important at this time to make changes in social security programs that will protect their solvency and financial viability for the years to come" (p. 6). The House report on the bill stated that the bill was:

> intended to restore the financial soundness of the old age and survivors' and disability insurance trust funds, both in the short-term and over the entire seventy-five year forecasting period. In order to accomplish this goal your Committee has approved a number of reforms, including major extensions of social security coverage, changes in the types of income subject to social security and income taxes, acceleration of payments into the trust funds from general revenues, reductions in benefit levels, and increases in OASDI tax rates (both the employer-employee rate and the self-employment rate) (98th Congress, 1st Session, House of Representatives Report No. 98-25, Part 1, 3/4/83, p. 13).

The amendments made only modest changes in benefits; the most significant were a six-month delay in cost-of-living increases and a gradual and delayed rise in the retirement age. Thus, since the tax increases were not motivated by concerns about the state of the economy and were not tied to any substantial contemporary changes in spending, we classify them as exogenous. The changes were clearly for deficit reduction.

The bill altered the schedule of Social Security tax rates. Together with increases already

[19] The Tax Equity and Fiscal Responsibility Act of 1982 repealed scheduled accelerations of the Accelerated Cost Recovery System called for in the Economic Recovery Tax Act of 1981. These repeals are the prime source of the increase in projected revenue in fiscal 1985 and 1986. Following our usual procedures, we do not include the tax cut in 1985 and 1986 in our revenue estimates for ERTA 1981, and so do not include the tax increase in our revenue estimates for TEFRA 1982.

scheduled under the 1977 amendments, the result was increases in the tax rate in 1984, 1985, 1986, 1988, and 1990. In addition, the bill provided for increased revenues starting in 1984 from wider coverage of Social Security and taxation of Social Security benefits (*Social Security Bulletin*, July 1983, pp. 24-30).

The *Budgets* for 1985-1991 provided estimates of the revenue effects of these changes by fiscal year. The changes actually went into effect at the beginning of each calendar year, however. For most provisions, we use our standard procedure of employing the estimates from the *Budgets* of revenue impacts in the first full fiscal year that various changes were in effect. For example, almost all the revenue-increasing provisions other than the increases in the tax rate were effective at the beginning of 1984. We therefore use the figure from the 1985 *Budget* for the effect of these provisions in fiscal 1985 (p. 4-17). This implies that there was a tax increase of $5.8 billion at an annual rate in 1984Q1. Similarly, we estimate that the increases in the Social Security tax rate in 1986, 1988, and 1990 raised revenues by $4.2 billion in 1986Q1, an additional $15.5 billion in 1988Q1, and a further $10.3 billion in 1990Q1 (1987 *Budget*, p. 4-15; 1989 *Budget*, p. 4-20; 1991 *Budget*, p. A-49).

Estimating the revenue effects of the higher tax rates at the beginning of 1984 and the beginning of 1985 is more complicated. Nominally, the Social Security tax rate rose by 0.6 percentage points on January 1, 1984 and by an additional 0.1 percentage points on January 1, 1985. During 1984, however, half of the 0.6 point increase was offset by a tax credit. Thus the net increases were 0.3 percentage points at the beginning of 1984 and 0.4 percentage points at the beginning of 1985 (*Social Security Bulletin*, July 1983, pp. 27-28).

The 1985 *Budget* provided estimates of the expected net revenue effects of the 1984 increase (p. 4-17). Because of the tax credit, the first full fiscal year that the increase was fully effective was fiscal 1986, when the expected revenue effect was an increase of $12.6 billion. Since this represents the effect of the full increase of 0.6 percentage points, and since only half of this was effective in 1984, we estimate that the rate increase at the beginning of 1984 raised revenues by $6.3 billion at an annual rate beginning in 1984Q1.

The 1986 *Budget* reported that the legislated rise of 0.1 percentage points in the tax rate on January 1, 1985 was expected to increase revenues the first full fiscal year it was in effect (fiscal 1986) by $2.2 billion (p. 4-16). Since the actual increase in the tax rate was 0.4 percentage points, we multiply this figure by four to obtain an estimate of a tax increase of $8.8 billion beginning in 1985Q1. Note that this is very similar to what one would obtain by taking the estimate of the effects of the 0.3 point increase in 1984 and multiplying it by four-thirds.

Putting these estimates together yields tax increases of $12.1 billion in 1984Q1, $8.8 billion in 1985Q1, $4.2 billion in 1986Q1, $15.5 billion in 1988Q1, and $10.3 billion in 1990Q1.[20]

The changes raised marginal tax rates on low- and middle-income taxpayers. They were intended to be permanent.

Deficit Reduction Act of 1984

Signed: 7/18/84
Change in Liabilities:
    1984Q3 +$8.0 billion (Exogenous; Deficit-driven)
Present Value:
    1984Q3 +$8.0 billion (Exogenous; Deficit-driven)

The key motivation for this act was deficit reduction. The 1984 *Economic Report* contained a

[20] An alternative approach is to use the calendar year estimates prepared at the time the legislation was enacted (*Social Security Bulletin*, July 1983, p. 42). These estimates focus specifically on the Social Security trust fund, and they do not include the effects of the changes provided for by the 1977 amendments. Once the estimates are corrected to account for these differences, however, they are quite similar to those obtained using the *Budgets*.

detailed discussion of the likely adverse consequences of the projected large budget deficits (pp. 35-40). It concluded that: "A major reduction in the structural budget deficit must therefore be achieved over the next several years" (p. 40). The *Economic Report* said that the administration wanted to work with Congress "to develop a 'down payment' package that will reduce the deficit by about $100 billion over the next 3 fiscal years" (p. 41). The dangers of large budget deficits and this call for a deficit reduction plan were reiterated in a number of presidential speeches in the winter and spring of 1984 (see, for example, Address Before a Joint Session of the Congress on the State of the Union, 1/25/84, p. 3, and Message to the Congress Transmitting the Fiscal Year 1985 Budget, 2/1/84, pp. 2-3). On March 15, 1984, the president announced a plan that would raise revenues by $48 billion over three years as part of a "deficit reduction program" (Remarks to Reporters Announcing a Deficit Reduction Plan, 3/15/84, p. 1).

A secondary motivation for the bill mentioned frequently by the administration was increased fairness and efficiency in the tax system. The 1985 *Economic Report* said: "The Deficit Reduction Act of 1984 contained numerous tax code changes, most of which were individually small and designed to make existing tax laws more effective" (p. 27). President Reagan advocated tax reform in a number of speeches. For example, in the 1984 Address Before a Joint Session of the Congress on the State of the Union, he stated: "Let us go forward with an historic reform for fairness, simplicity, and incentives for growth" (1/25/84, p. 3). In his Remarks to the Senate Republican Caucus on the Budget Deficit, he stated: "We believe that there are loopholes, there are provisions in the tax law that, in some instances, say, are unfair generally, or some can take advantage—unintended advantage of them" (3/21/84, p. 1). The 1986 *Budget* summarized the act saying that the tax changes "are designed to increase the efficiency of the tax system by curbing tax shelter abuse, limiting unwarranted tax benefits, and increasing taxpayer compliance" (p. 4-4).

Conventional short-run economic concerns do not appear to have played any role in the administration's support for the tax increase. The economy was perceived as growing rapidly, but not worrisomely so. The February 1984 Budget Message stated: "Vigorous, noninflationary economic recovery is well underway" (Message to the Congress Transmitting the Fiscal Year 1985 Budget, 2/1/84, p. 8). Likewise, in his Remarks to the House Republican Caucus on the Budget Deficit, Reagan said of the recovery: "I don't think it's overheated. And I think it's a solid one because it has been based on solid practices" (3/21/84, p. 1). The only fear expressed was that the threat of large deficits "raises the specter of sharply higher interest rates, choked-off investment, renewed recession, and rising unemployment" (Message to the Congress Transmitting the Fiscal Year 1985 Budget, 2/1/84, p. 2). Thus, there is no evidence that the administration was urging tax increase because growth was expected to be too rapid.

Congressional motivation for the bill was virtually identical to that of the administration. The bill, H.R. 4170, began as a modest tax reform measure in 1983. It was then completely revamped to be part of the "down payment on the deficit" that the president had asked for. A supplemental House report on the substitute bill stated: "Despite the recovery of the U.S. economy in 1983, there is now widespread concern that the massive budget deficits projected by both the Office of Management and Budget and the Congressional Budget Office will threaten continued economic growth and investment. The first objective of the bill is to reduce these budget deficits in order to safeguard the economic recovery" (98th Congress, 2d Session, House of Representatives Report No. 98-432, Part 2, 3/5/84, p. 1094). The House report also mentioned efficiency and equity as motivations. It stated: "The second objective of the bill is to prevent further erosion of the tax base as a result of tax sheltering activity. … The third objective of the bill is to ensure that all taxpayers pay a fair share of the tax burden. The fourth principal objective of the bill is to improve the administration and efficiency of the tax system" (House Report No. 98-432, Part 2, p. 1094).

Because the tax increase was motivated by a desire to reduce the deficit and to increase the efficiency and fairness of the tax system, and not by a desire to return growth to normal, we classify it as exogenous. Because concern about the deficit appears to have been paramount, we classify it as a deficit-driven action.

The bill made numerous small changes to the tax code, most of which either went into effect

immediately or were slightly retroactive (1986 *Budget*, pp. 4-5, 4-6). Since the bill was signed in July 1984, we therefore date a tax increase as occurring in 1984Q3.

The 1986 *Budget* (p. 4-8) and CBO (Projecting Federal Tax Revenues and the Effect of Changes in Tax Law, 12/98, p. 22) provide similar estimates of the revenue effects of the act by fiscal year. Some of the revenues from the bill came from postponements of scheduled tax cuts rather than from genuine tax increases. Because the CBO estimates separate out these effects, we use the CBO figures as the basis for our revenue estimates. CBO reported that, omitting the postponements, the act was expected to increase revenues by $8 billion in fiscal 1985 (the first full fiscal year after passage of the bill). We therefore identify a tax increase of $8 billion in 1984Q3. Since roughly one-third of the total additional revenues from the bill came from the postponements of scheduled reductions, the estimate of an increase of $8 billion per year is broadly consistent with the president's statement that the overall revenue effect would be $48 billion over three years.

The revenue effects of the bill were expected to rise non-trivially over time. Some of the increases were the result of changes scheduled in the bill rather than growth of the economy (1986 *Budget*, pp. 4-5, 4-6). However, the amounts involved are modest (roughly $2 billion to $3 billion per year), and our sources provide little information about them other than that they were complicated and varied by provision. For example, the 1986 *Budget* referred to one important provision simply as being "subject to numerous transition rules"(p. 4-5). We therefore do not include any tax increases from this bill in our analysis after the initial one in 1984Q3.

The most important provisions of the bill included a reduction in the tax benefits for tax-exempt entity leasing, a change in the tax treatment of bonds and other debt instruments, a change in the rules about income averaging, and a reform of life insurance company taxation. All of the changes except the postponements of scheduled tax reductions were legislated to be permanent (1986 *Budget*, pp. 4-5, 4-6).

The deficit reduction plan as announced by the president in March 1984 also had a reduction in federal spending relative to projected of $100 billion over three years (Remarks to Reporters Announcing a Deficit Reduction Plan, 3/15/84, p. 1). Thus, it is possible that tax increases and spending cuts were correlated in this period. However, the 1985 *Economic Report* made no mention of significant reductions in spending growth in 1984.

Tax Reform Act of 1986

Signed: 10/22/86
Change in Liabilities:

1986Q4	+$22.7 billion	(Exogenous; Long-run)
1987Q1	–$7.2 billion	(Exogenous; Long-run)
1987Q3	–$20.0 billion	(Exogenous; Long-run)
1988Q1	–$7.2 billion	(Exogenous; Long-run)

Present Value:

1986Q4	–$10.12 billion	(Exogenous; Long-run)

The motivation for the Tax Reform Act of 1986 was, as the name suggests, tax reform. The administration began talking about tax reform even before the Economic Recovery Tax Act was passed. In his Address Before a Joint Session of the Congress on the Program for Economic Recovery in February 1981, Reagan said: "I'm well aware that there are many other desirable and needed tax changes …. I pledge I will join with you in seeking these additional tax changes at the earliest date possible" (2/18/81, p. 4). In his 1984 Address Before a Joint Session of the Congress on the State of the Union, Reagan stated: "Let us go forward with an historic reform for fairness, simplicity, and incentives for growth. I am asking Secretary Don Regan for a plan of action to simplify the entire tax code, so all taxpayers, big and small, are treated more fairly" (1/25/84, p. 3). The president announced the plan in his Address to the Nation on Tax Reform in May 1985. The motivations given for tax reform in that speech

were the same as in the 1984 State of the Union Address: fairness, simplicity, and growth. He stated that the plan would "transform a system that's become an endless source of confusion and resentment into one that is clear, simple, and fair for all—a tax code that … ensures your families and firms incentives and rewards for hard work and risk-taking in an American future of strong economic growth" (5/28/85, p. 1). These same themes were mentioned in the 1986 *Economic Report* (p. 8), and in countless speeches in late 1985 and 1986 (see, for example, Address Before a Joint Session of Congress on the State of the Union, 2/4/86, pp. 2-3; Radio Address to the Nation on Tax Reform, 5/10/86, p. 1; and Remarks on Signing the Tax Reform Act of 1986, 10/22/86, p. 1).

As the above quotations make clear, economic growth was frequently mentioned as a motivation. However, the focus was entirely on the long run. The administration never mentioned current conditions as a motivating factor. The 1986 and 1987 *Economic Reports* suggest that at the time the act was being proposed and debated, the economy was growing normally and was expected to continue doing so (1986 *Economic Report*, p. 3; 1987 *Economic Report*, p. 3). Tax reform in the form of lower marginal rates and fewer special incentives was seen by the administration as an engine of long-run growth. For example, Reagan stated in his Remarks on Signing the Tax Reform Act of 1986: "Fair and simpler for most Americans, this is a tax code designed to take us into a future of technological invention and economic achievement, one that will keep America competitive and growing into the 21st century" (10/22/86, p. 1). The 1987 *Economic Report* acknowledged, however, that by reducing incentives for investment the act "may cause some short-run adjustment problems" (p. 93).

Congressional motivation for the bill was very similar to that of the administration. The House report stated: "The committee believes that the tax system is nearing a crisis point. … Unless decisive action is taken now, compliance with the tax system will further erode and the inefficiencies introduced by the tax system will restrict the potential growth of the economy" (99th Congress, 1st Session, House of Representatives Report No. 99-426, 12/7/85, pp. 54-55). It also cited tax equity, simplification, and a desire to "reduce the interference of the tax system in the efficient allocation of resources in the economy" as key reasons for the bill (pp. 55-58). The Senate report on the bill gave virtually identical motivations (99th Congress, 2d Session, Senate Report No. 99-313, 5/29/86, pp. 3-8).

Because the act was motivated by a desire to make the tax system fairer, simpler, and more conducive to long-run growth, and not by a desire to return growth to normal, we classify it as an exogenous, long-run action.

Discerning the exact revenue effects of the Tax Reform Act is exceptionally difficult. Because it was intended as a broad restructuring of the tax code that would improve efficiency while having little impact on revenues, it contained substantial numbers of both revenue-increasing and revenue-decreasing provisions. Moreover, the timing of the changes was complicated: although most went into effect on January 1, 1987, some were retroactive, some occurred with a delay, and others were phased in (1988 *Budget*, pp. 4-6 through 4-11). None of our sources provide quarterly estimates—or even calendar-year estimates—of the revenue effects. Fortunately, however, it is clear that the overall revenue effects of the act were small. As a result, any errors in our estimates are likely to have little impact on estimates of the effects of changes in the level of taxation.

Our qualitative sources all agree that the long-run revenue effects of the act would be small. The Congressional reports took the position that the reforms were intended to be revenue-neutral (House Report No. 99-426, pp. 55, 62; Senate Report No. 99-313, p. 9). Reagan was emphatic that tax reform would not increase taxes, but did not address the possibility that it might lower taxes (see, for example, Address Before a Joint Session of Congress on the State of the Union, 2/6/85, p. 2, and Address Before a Joint Session of Congress on the State of the Union, 2/4/86, p. 3). The 1987 *Economic Report* stated that the efficiency effects of the act would raise GDP by about 2 percent in the long run, and that this would make the act essentially revenue-neutral (p. 21). This suggests an expected revenue loss at then-prevailing income levels of roughly $20 billion per year.

We have four different sources giving quantitative estimates of the expected revenue effects of the act by fiscal year: the 1988 *Budget* (pp. 4-15 through 4-17), a 1998 CBO document that reported the revenue effects that were expected at the time of passage (Projecting Federal Tax Revenues and the Effect

of Changes in Tax Law, 12/98, p. 25), a 1987 CBO document (The Economic and Budget Outlook: An Update, 8/87, p. 50), and the Conference report (99th Congress, 2d Session, House of Representatives Report 99-841, Volume II, 9/18/86, pp. II-861 through II-885). These sources differ substantially in their year-to-year projections. However, they all agree that the act was expected to reduce revenues by between $9 and $18 billion in fiscal 1989 (by which time the major provisions were largely scheduled to be in effect). For concreteness, we use the figure from the *Budget*. Thus we estimate that the long-run effect of the act was to reduce revenues by $11.7 billion at an annual rate.

This effect did not occur all at once. Most changes occurred on January 1, 1987 and January 1, 1988. The bill called for two significant changes on other dates, however. First, the investment tax credit was repealed retroactive to January 1, 1986, with the caveat that "certain property will continue to be eligible for the investment credit for various periods through 1990" (1988 *Budget*, p. 4-9). Despite the retroactive nature of the repeal, the projected path of the increased revenues it would generate was very smooth (Conference Report, p. II-867). Since the retroactive repeal was not projected to lead to an unusual surge in revenues, we assume that they were of minimal importance and so neglect them in constructing our revenue estimates. The estimated effect of the repeal in fiscal 1987 (which began at essentially the same time the bill was signed) was an increase of $22.7 billion. We therefore estimate that the repeal raised taxes by $22.7 billion at an annual rate beginning in 1986Q4.

Second, corporate income tax rates were reduced on July 1, 1987 (1988 *Budget*, p. 4-9). The corporate rate reductions were expected to lower revenues in fiscal 1988 (the first full fiscal year after the reduction) by $20.0 billion (Conference Report, p. II-871). Thus we estimate that this feature lowered revenues by $20.0 billion at an annual rate beginning in 1987Q3.

As described above, most other features of the bill were effective on January 1, 1987 or January 1, 1988. Since we estimate that the long-run effect of the bill was to lower revenues by $11.7 billion, this implies a total tax cut of $14.4 billion on these two dates. Moreover, it is reasonably clear from the nature of the changes that taxes were cut on both dates. Thus, in the absence of any additional information, we assume that the $14.4 billion was split evenly between the two dates. Our final estimates are therefore a tax increase of $22.7 billion in 1986Q4, followed by cuts of $7.2 billion in 1987Q1, $20.0 billion in 1987Q3, and $7.2 billion in 1988Q1. Consistent with these estimates of an initial tax increase followed by cuts, all our sources projected that the act would increase revenues moderately in fiscal 1987.[21]

In general, the changes in the Tax Reform Act consisted of broadening of the tax base and reductions in marginal rates. The measures broadening the base included repeal of the investment tax credit, elimination of the special tax treatment of capital gains, reductions in depreciation allowances, expansions of the definition of taxable income, and elimination of numerous deductions. The changes were generally expected to be permanent (1988 *Budget*, pp. 4-6 through 4-11).

Omnibus Budget Reconciliation Act of 1987

Signed: 12/22/87
Change in Liabilities:
1988Q1 +$10.8 billion (Exogenous; Deficit-driven)
Present Value:
1987Q4 +$10.59 billion (Exogenous; Deficit-driven)

[21]The fact that the bill called for an increase in the tax on capital gains on January 1, 1987 led to a surge of capital-gains realizations, and thus a one-time jump in revenues, in late 1986 (CBO, 12/98, p. 24; 1988 *Budget*, p. 4-16). Since these additional revenues resulted from a change in behavior at given tax rates, however, we do not classify them as a tax increase. Even subtracting an estimate of these revenues, our sources all projected that the act would be revenue-increasing or approximately revenue-neutral in fiscal 1987 before leading to lower revenues in later years.

The motivation for the Omnibus Budget Reconciliation Act of 1987 was clearly deficit reduction. The president spoke frequently about deficit reduction in early 1987. For example, in his 1987 Address Before a Joint Session of Congress on the State of the Union, Reagan stated: "the Federal deficit is outrageous. … Together we made a commitment to balance the budget. Now let's keep it" (1/27/87, p. 3). The 1987 *Economic Report* added the administration's usual view that "[d]eficit reduction must continue and must be achieved by restraining the growth of Federal Spending—not by raising taxes" (p. 5). Indeed, in mid-October 1987, the president threatened to veto a bill that included modest tax hikes (Statement on Proposed Tax Increases, 10/15/87, p. 1).

The stock market crash on October 19, 1987 appears to have sped up the timing of the budget agreement and increased the willingness of the administration to accept a tax increase. Records of exchanges with reporters suggest a perception that the crash reflected Wall Street's pessimism about the prospects for deficit reduction (Informal Exchange with Reporters on the Stock Market Decline and the Federal Deficit, 10/20/87, p. 1; Remarks and a Question-and-Answer Session With Reporters on the Stock Market and Economic Policy, 10/20/87, p. 1; and Informal Exchange With Reporters, 10/21/87, p. 1). Reagan seemed to have embraced this view when he said: "This country has been held captive by the threat of ever-increasing deficits, and it became apparent several weeks ago when our nation was stunned as the stock market took a dramatic dive" (Remarks Announcing a Bipartisan Plan to Reduce the Federal Budget Deficit and a Question-and-Answer Session With Reporters, 11/20/87, p. 1). He recounted, "It became clear … on that day that it was time for action, and immediately we took the necessary steps to deal with our Federal budget problems" (11/20/87, p. 1).

Subsequent presidential documents all describe the bill as motivated by deficit reduction. The 1988 *Economic Report* stated: "The Gramm-Rudman-Hollings law and our recent agreement with the Congress on a 2-year budget-trimming package have charted the course for additional deficit reduction" (p. 9). Likewise, in his Remarks on Signing the Continuing Appropriations for Fiscal Year 1988 and the Omnibus Budget Reconciliation Act of 1987, the president described the bill as "an agreement between the administration and the Congress to place our country on the right course toward reducing the Federal budget deficit and continuing the longest peacetime expansion in history" (12/22/87, p. 1).

The tax increase was not passed because output was perceived as growing faster than normal. According to the 1988 *Economic Report*, "The Administration's economic forecast anticipates that the rate of economic expansion will slow this year from the rapid pace set in 1987. Subsequently, growth is projected to resume at a rate that more fully reflects the economy's long-term potential" (p. 45). Likewise, to the degree that the tax increase was motivated by the stock market crash, it was designed to stabilize market expectations; a tax increase would certainly not be a typical countercyclical response to the possible negative aggregate demand effects of the crash. In this regard, it is useful to note that the *Economic Report* emphasized that the Reagan administration had throughout its tenure been opposed to such countercyclical actions. It stated: "My Administration has adopted a long-term view that fiscal policy determines the division of economic activity between the public and private sectors and is not meant to respond to every rise and fall in the economic data" (p. 6).

Congressional motivation for the bill was also deficit reduction. The Ways and Means Committee report (included in the larger report by the House Committee on the Budget), stated: "Title X provides $12 billion of additional revenues to reduce the fiscal year 1988 deficit" (100th Congress, 1st Session, House of Representatives Report No. 100-391, 10/26/87, p. 801). At the press conference announcing the bipartisan plan to reduce the deficit, Congressional leaders uniformly emphasized that the action was aimed at deficit reduction. The Speaker of the House, James Wright, said: "It is a real set of deficit reductions. It isn't painless for the very reason that it is real and not cosmetic" (Remarks Announcing a Bipartisan Plan to Reduce the Federal Budget Deficit and a Question-and-Answer Session With Reporters, 11/20/87, p. 1). Likewise, Representative Thomas Foley, who chaired the negotiations, said: "we see this agreement as a milestone in our efforts to bring about a reduction of the deficit" (pp. 1-2).

Because the tax increase was designed to reduce the deficit, and was not motivated by a desire to return growth to normal, we classify it as an exogenous, deficit-driven action.

To estimate the revenue effects of the act, we combine the descriptions of its provisions in the 1989 *Budget* (pp. 4-5 through 4-12) with the revenue estimates for each provision in the Conference report (100th Congress, 1st Session, House of Representatives Report No. 100-495, 12/21/87, pp. 1024-1025).[22] The main revenue-increasing provisions of the act were largely effective on January 1, 1988, so we date the tax increase in 1988Q1. The Conference report estimated that the act was expected to raise revenues in the first full fiscal year after January 1, 1988 (fiscal 1989) by $14.4 billion. Of these additional revenues, we calculate that $3.6 billion were from provisions that postponed scheduled tax cuts or accelerated collections, and therefore did not change actual tax liabilities. Therefore, we estimate that there was a tax increase of $10.8 billion at an annual rate in 1988Q1. This estimate is consistent with the president's Message to the Congress Transmitting the Fiscal Year 1989 Budget, which stated: "I agreed to some $29 billion in additional revenues … over 2 years" (2/18/88, p. 3). The president's figure included the revenue effects of the tax extensions.

The act consisted largely of technical revisions concerning such issues as accounting rules for long-term contracts, the treatment of funds held in reserve by employers for employees' paid leave, and sales of stocks held by estates. The changes were generally intended to be permanent.

The tax increases in the act were part of a budget agreement between the president and Congress. According to the 1989 *Budget*, the agreement also called for $47 billion of reductions in spending relative to its projected path over a two-year period (p. 1-6).

Omnibus Budget Reconciliation Act of 1990

Signed: 11/5/90
Change in Liabilities:
1991Q1 +$35.2 billion (Exogenous; Deficit-driven)
Present Value:
1990Q4 +$34.55 billion (Exogenous; Deficit-driven)

From the standpoint of the administration, the motivation for this tax change was clearly deficit reduction. The 1991 *Economic Report* repeatedly referred to the act as a "deficit reduction package" and emphasized that deficit reduction was crucial for long-term growth (pp. 6, 46). Likewise, in a speech urging passage of the bill, President Bush referred to "a cancer gnawing away at our nation's health. That cancer is the budget deficit" (Address to the Nation on the Federal Budget Agreement, 10/2/90, p. 1; see also Statement on Signing the OBRA of 1990, 11/5/90, pp. 1-2). At the time of passage, the administration was aware that a recession had started and growth was predicted to be less than 1 percent in 1991 (1991 *Economic Report*, pp. 21, 24).

Congress's support for the tax changes was also motivated by long-run considerations. The House report on the bill did not provide an overall motivation for the changes, but discussed each item separately (101st Congress, 2d Session, House of Representations Report No. 101-881, 10/16/90). The motivations for the major items affecting revenues focused on deficit reduction, progressivity, and the correction of externalities. For example, the report supported raising the cap on wages subject to Medicare taxes on the grounds that this "will improve the progressivity of the tax system … and will enhance [Medicare's] long-term solvency" (p. 356). The justification for limiting itemized deductions for high-income taxpayers was that it furthered "the goal of personalizing the Federal income tax based on each individual's ability to pay taxes" (p. 361). And raising gasoline taxes was advocated on the grounds that it "will both promote greater energy self-sufficiency and reduce atmospheric pollution," and because "[i]ncreasing these excise taxes has the … benefit of raising revenue to reduce the deficit" (p. 285).

[22] The 1989 *Budget* (p. 4-13) and CBO (Projecting Federal Tax Revenues and the Effect of Changes in Tax Law, 12/98, p. 28) provided estimates of the overall expected revenue effects very similar to those in the Conference Report. We use those in the Conference Report because it provided a detailed breakdown.

Short-run macroeconomic considerations were never mentioned.[23]

Because the act was motivated by a desire to reduce the budget deficit, and not by a desire to keep output growth at its normal level, we classify it as an exogenous, deficit-driven action.

The 1991 *Economic Report* said the act would increase tax revenues $150 billion over fiscal years 1991 to 1995 (p. 65). The 1992 *Budget* estimated that the revenue effect would rise from $22.5 billion in fiscal 1991 to $35.2 billion in fiscal 1992, and then remain roughly constant (Part Three, p. 7). Similarly, CBO reported that the act was expected to increase revenue by $18 billion in fiscal 1991, $33 billion in fiscal 1992, and similar amounts in later years (The 1990 Budget Agreement: An Interim Assessment, 12/90, p. 6; see also Projecting Federal Tax Revenues and the Effect of Changes in Tax Law, 12/98, pp. 30-31).

Almost all the revenue provisions were effective January 1, 1991. Thus the first full fiscal year the changes were scheduled to be in effect was fiscal 1992. We therefore use the estimated revenue effect from the *Budget* for that year as our revenue estimate. That is, we estimate that there was a tax increase of $35.2 billion in 1991Q1. Note that this figure is quite consistent both with CBO's estimates and with the somewhat vague number in the *Economic Report*.

The tax increases took a variety of forms. There were some rises in marginal rates for very high earners and reductions for moderately high earners. There were excise tax increases on gasoline and other fuels. The act also increased payroll taxes by nearly tripling the amount of earnings subject to the Medicare tax. All the tax increases were permanent (the 1991 *Economic Report*, p. 65, and the 1992 *Budget*, Part Three, pp. 4-7, discuss the changes). In a speech, President Bush said the act would reduce entitlement and discretionary spending by $301 billion over the next five fiscal years (Remarks Announcing a Federal Budget Agreement, 9/30/90, p. 1). Therefore, a rough estimate of the annual reduction in government spending is $60.2 billion beginning in 1991Q1.

Omnibus Budget Reconciliation Act of 1993

Signed: 8/10/93

Change in Liabilities (excluding retroactive changes):

1993Q3	+$22.8 billion	(Exogenous; Deficit-driven)
1993Q4	+$5.3 billion	(Exogenous; Deficit-driven)
1994Q1	+$13.4 billion	(Exogenous; Deficit-driven)

Change in Liabilities (including retroactive changes):

1993Q3	+$68.4 billion	(Exogenous; Deficit-driven)
1993Q4	–$40.3 billion	(Exogenous; Deficit-driven)
1994Q1	+$13.4 billion	(Exogenous; Deficit-driven)

Present Value:

1993Q3	+$41.64 billion	(Exogenous; Deficit-driven)

The motivation for this tax change was deficit reduction. In a speech to Congress describing his economic proposals, President Clinton called for "a deficit reduction program that will increase the savings available for the private sector to invest, will lower interest rates, will decrease the percentage of the Federal budget claimed by interest payments, and decrease the risk of financial market disruptions that could adversely affect our economy" (Address Before a Joint Session of Congress on Administration Goals, 2/17/93, p. 2). He went on to say, "Over the long run, all this will bring us a higher rate of economic growth, improved productivity, more high-quality jobs, and an improved economic competitive position in the world" (p. 2). In a radio address, he said his plan called for "a little more in deficit

[23] The report also argued for some of the revenue measures (including the increase in gasoline taxes) on the grounds that some of the additional revenues could be used for valuable spending projects. As described below, however, the overall effect of the bill was to reduce spending.

reduction today, so that we can all enjoy better jobs and higher incomes tomorrow" (The President's Radio Address, 5/15/93, p. 1). Similarly, the 1994 *Economic Report* stated, "Reducing the budget deficit was a necessary part of clearing away the financial underbrush … so that economic growth could be put on a sounder and more sustained footing" (p. 31).

Congress also viewed the central purpose of the tax change as deficit reduction. The House report on the bill stated, "This bill embodies all the basic elements of President Clinton's program to turn our country away from being an excess-consumption economy and toward investment in the future productivity of our people" (103rd Congress, 1st session, House of Representatives Report No. 103-111, 5/25/93, pp. 1-2). The report went on to describe the bill as "the necessary first step in long-run deficit control" (p. 2), and to say that "[i]t reduces the huge drain on the nation's savings pool that the deficit represents" (p. 3). A secondary motive in Congress was increased progressivity. For example, the House report stated, "The tax package restores tax code progressivity lost in recent years" (p. 4). The justifications for the major specific revenue-increasing features of the package focused almost entirely on deficit reduction and progressivity (see, for example, pp. 635, 643, and 655). A desire to offset short-term cyclical factors was never mentioned as a reason for the changes. Thus, this tax change is clearly an exogenous, deficit-driven action.

The timing of the tax changes called for in the legislation was somewhat complicated. Large parts of the changes were retroactive to January 1, 1993, and some smaller changes were retroactive as well. Other major parts went into effect on January 1, 1994. Finally, some features went into effect between these two dates, notably an increase in the gasoline tax on October 1, 1993 (1995 *Budget, Analytical Perspectives*, pp. 36-39).

The effects of the bill on fiscal 1994 revenues were complicated by the retroactive features and by the fact that not all of the changes were in effect for the full fiscal year. We therefore use the estimated revenue effects for fiscal 1995 (the first full fiscal year the changes were in effect) as the starting point for our estimates. CBO reported that the bill was expected to increase revenues in fiscal 1995 by $41.5 billion (An Economic Analysis of the Revenue Provisions of OBRA-93, January 1994, pp. 2-3). A Joint Committee on Taxation document (Estimated Budget Effects of the Revenue Provisions of H.R. 2264 (the Omnibus Budget Reconciliation Act of 1993) as Agreed to by the Conferees, JCX-11-93, 8/4/93) provided a detailed breakdown of this figure by provision, together with their effective dates. $22.8 billion was retroactive, almost entirely to the beginning of 1993; $5.3 billion went into effect during 1993, almost entirely on October 1; and $13.4 billion went into effect at the beginning of 1994.

Combining these estimates and using our usual procedure for dealing with retroactive changes yields a tax increase of $68.4 billion in 1993Q3, a cut of $40.3 billion in 1993Q4, and an increase of $13.4 billion in 1994Q1. If one did not account for the retroactive features, the estimates would be an increase of $22.8 billion in 1993Q3, an increase of $5.3 billion in 1993Q4, and an increase of $13.4 billion in 1994Q1.

The bill also included provisions calling for substantial spending cuts. The administration estimated the reductions, including lower interest payments because of lower deficits, at $255 billion over five years (Remarks on Signing the Omnibus Budget Reconciliation Act of 1993, 8/10/93, p. 1). CBO estimated the reductions, excluding reduced interest payments, as $146 billion over the same period (An Economic Analysis of the Revenue Provisions of OBRA-93, January 1994, p. 1).

Roughly two-thirds of the additional revenues came from higher marginal rates on high-income individuals (from both the regular income tax and the repeal of the cap on income subject to the Medicare tax). The remaining third came from a wide array of sources. The changes were almost all intended to be permanent.

Taxpayer Relief Act of 1997 and Balanced Budget Act of 1997

Signed: 8/5/97
Change in Liabilities:

1998Q1	–$20.9 billion	(Endogenous; Spending-driven)
2000Q1	+$1.7 billion	(Exogenous; Deficit-driven)
2002Q1	+$0.6 billion	(Exogenous; Deficit-driven)

Present Value:

1997Q3	–$20.30 billion	(Endogenous; Spending-driven)
1997Q3	+$1.93 billion	(Exogenous; Deficit-driven)

These two bills were the result of extended negotiations between the administration and Congress. The bills involved a complicated package of spending and tax changes that were on net expected to reduce future deficits. Together they lowered the projected paths of both spending and taxes, but the spending reductions were larger than the tax cuts. The Taxpayer Relief Act consisted mainly of tax reductions effective at the beginning of 1998. The Balanced Budget Act consisted mainly of spending reductions, but also included increases in the excise tax on cigarettes on January 1, 2000 and January 1, 2002 (1999 *Budget*, *Analytical Perspectives*, pp. 42-54; CBO, Budgetary Implications of the Balanced Budget Act of 1997, December 1997; CBO, An Economic Analysis of the Taxpayer Relief Act of 1997, April 2000).

From the administration's perspective, it is clear that the tax cuts in the Taxpayer Relief Act were driven by the spending cuts. The 1998 *Budget*, in presenting the President's proposals, was explicit about the link: "the President continues to seek cuts in unnecessary and lower-priority spending …, and to eliminate unwarranted tax loopholes and preferences. His $388 billion in total savings would do more than bring the budget into balance by 2002. They also would provide enough savings to finance a modest tax cut" (p. 15). In other administration documents, the link was implicit. The bills were always described first and foremost as a deficit reduction package, with the accompanying long-run benefits. Thus implicitly, the tax cuts would not have been feasible without the spending cuts. For example, in a radio address on February 22, the president said: "We must balance the budget to keep interest rates down and investment up and jobs coming in. … This month I submitted my plan to balance the budget by 2002. … It saves $350 billion over the next 5 years, enough not only to balance the budget but also to cut taxes" (The President's Radio Address, 2/22/97, p. 1). Similarly, in remarks on June 30, he stated: "We abandoned trickle-down and the big deficits and instead adopted an invest and grow strategy …. The agreement that we signed with the Republican and Democratic leaders of Congress reflects the invest and grow strategy. … It eliminates the deficit, it invests in education, it extends health care for more of our children while securing Medicare for our parents, and it provides for an affordable tax cut for the American people" (Remarks on Departure for Boston, Massachusetts, and an Exchange With Reporters, 6/30/97, p. 1). Thus in terms of the administration's motivations, it is clear that the tax reductions were driven by spending reductions, and so would be classified as an endogenous, spending-driven.

The evidence concerning Congress's motivations also points to classifying the tax reductions as endogenous, though not quite as clearly. In part, Congress shared the administration's view of the importance of balancing the budget, and so viewed spending cuts as necessary for tax cuts. But in part, Congress viewed tax cuts as desirable on philosophical grounds. The House report, for example, expressed both motives: "balancing the Federal budget is only half the job. Congress and the administration must, at the same time, let Americans keep more of their own money …. That is the principle behind this legislation …. This bill and its twin measure, the Balanced Budget Act of 1997, seek jointly … to balance the Federal budget by 2002 and provide much-needed tax relief for America's middle-income working families" (105th Congress, 1st session, House of Representatives Report No. 105-148, 6/24/97, p. 283).

Even though the Congressional motivations were partly philosophical, the tax reduction occurred in the context of a balanced budget agreement between the president and Congressional leaders that called

for spending reductions.[24] Thus the tax cut was inextricably linked with spending cuts. We therefore classify it as an endogenous, spending-driven action. The small tax increases in the Balanced Budget Act, in contrast, were part of a deficit reduction package—indeed, they were legislated in a bill whose central purpose was to reduce spending in order to lower the deficit. We therefore classify these increases as exogenous, deficit-driven actions.

Most of the changes called for by the Tax Reduction Act of 1997 took effect on January 1, 1998. Only one major feature—a reduction in the capital gains tax—was retroactive (1999 *Budget*, *Analytical Perspectives*, pp. 42-54). That feature was in fact expected to increase revenues in the short run, through its impact on the timing of capital gains realizations (CBO, An Economic Analysis of the Taxpayer Relief Act of 1997, April 2000, pp. 6-7). CBO projected that in fiscal 1999, which was the first fiscal year the main changes were to be in effect, the bill would lower revenues by $20.9 billion, and that the revenue loss would grow fairly smoothly after that (pp. 2-3; we include tax credits that were officially classified as spending and exclude provisions that only changed the timing of tax payments). We therefore estimate the revenue effect as a tax cut of $20.9 billion starting in 1998Q1.

The only important provisions of the Balanced Budget Act of 1997 affecting taxes were increases in the cigarette tax of ten cents per pack on January 1, 2000 and an additional five cents per pack on January 1, 2002 (1999 *Budget*, *Analytical Perspectives*, p. 54). According to CBO, revenue from the cigarette tax increases was expected to be $1.7 billion in the first full fiscal year the first increase was scheduled to be in effect, and $2.3 billion in the first full fiscal year the second increase was scheduled to be fully in effect (CBO, Budgetary Implications of the Balanced Budget Act of 1997, December 1997, p. 86). We therefore estimate that there were tax increases of $1.7 billion in 2000Q1 and $0.6 billion in 2002Q1. The act also called for spending cuts of $161 billion over five years (CBO, Budgetary Implications of the Balanced Budget Act of 1997, December 1997, pp. 2-3). Therefore, this is a time when a small exogenous tax increase was accompanied by a large spending cut.

The largest sources of the tax reductions in the Taxpayer Relief Act were a child tax credit and education tax credits. The tax increases in the Balanced Budget Act took the form of higher cigarette taxes. The changes in both acts were generally intended to be permanent.

Economic Growth and Tax Relief Reconciliation Act of 2001

Signed: 6/7/01

Change in Liabilities (excluding retroactive changes):

2001Q3	–$57.0 billion	(Endogenous; Countercyclical)
2002Q1	+$57.0 billion	(Endogenous; Countercyclical)
	–$83.0 billion	(Exogenous; Long-run)

Change in Liabilities (including retroactive changes):

2001Q3	–$171.0 billion	(Endogenous; Countercyclical)
2001Q4	+$114.0 billion	(Endogenous; Countercyclical)
2002Q1	+$57.0 billion	(Endogenous; Countercyclical)
	–$83.0 billion	(Exogenous; Long-run)

Present Value:

2001Q2	–$2.42 billion	(Endogenous; Countercyclical)
2001Q2	–$80.35 billion	(Exogenous; Long-run)

There were two distinct motivations for the tax cuts in the Economic Growth and Tax Relief Reconciliation Act of 2001. The idea of a large tax cut was first proposed by George W. Bush in the 2000 election campaign. At that time, the motivation was entirely philosophical. For example, in his

[24] For the text of the agreement, see, for example, 105th Congress, 1st Session, House of Representatives Report No. 105-100, 5/18/97, pp. 130-131.

acceptance speech at the Republican national convention, Bush said:

> I will use this moment of opportunity to bring common sense and fairness to the tax code. And I will act on principle. On principle … every family, every farmer and small businessperson, should be free to pass on their life's work to those they love. So we will abolish the death tax. On principle … no one in America should have to pay more than a third of their income to the federal government. So we will reduce tax rates for everyone, in every bracket. On principle … those in the greatest need should receive the greatest help. So we will lower the bottom rate from 15 percent to 10 percent and double the child tax credit. Now is the time to reform the tax code and share some of the surplus with the people who pay the bills (Acceptance Speech, 8/3/00, pp. 4-5, dots of ellipsis in the original).

Similarly, in a typical stump speech, he said, "the surplus is the people's money. And our people are overtaxed. … [W]ith about quarter of that surplus, we need [to] give the hard-working people of America their money back. Your money, not the government's money. We're going to get rid of the death tax and the marriage penalty. We're reducing rates on everybody who pays taxes in America" (Special Event: Bush Delivers Stump Speech in Glenside, Pennsylvania, 11/4/00, p. 3).

In its original version, the tax cuts would have been phased in gradually beginning in 2002. This was also true of the version of the cuts the president proposed on February 8, 2001 (see 2002 *Budget*, *Analytical Perspectives*, pp. 38-45). By that time, however, there was considerable concern about the health of the economy. As a result, a secondary motive for the cuts developed: offsetting prospective economic weakness. This motivation was almost always discussed in the context of making some of the cuts retroactive to January 1, 2001 rather than having them begin on January 1, 2002.

A good example of these dual motivations is provided by the proposal on February 8. The proposal stated: "over the long run, wealth is created by hard-working, risk-taking individuals, not government programs. Countries with low taxes, limited regulation, and open trade grow faster, create more jobs, and enjoy higher standards of living than countries with bigger, more centralized governments and higher taxes" (The President's Agenda for Tax Relief, 2/8/01, p. 1). But it also said, the "tax cut will help prevent a prolonged economic downturn," and "President Bush believes that the best way to ensure that prosperity continues is to put more money in the hands of consumers and entrepreneurs. That is why he advocates cutting tax rates now. President Bush will work with the Congress to accelerate a portion of his tax plan to the beginning of 2001" (p. 6). The same two motives were clearly expressed in the president's address to Congress on February 27. He stated:

> the growing surplus exists because taxes are too high and Government is charging more than it needs. … A tax rate of 15 percent is too high for those who earn low wages, so we must lower the rate to 10 percent. No one should pay more than a third of the money they earn in Federal income taxes, so we lowered the top rate to 33 percent. … Our government should not tax and, thereby, discourage marriage, so we reduced the marriage penalty. I want to help families rear and support their children, so we doubled the child credit to $1,000 per child. It's not fair to tax the same earnings twice—once when you earn them, and again when you die—so we must repeal the death tax (Address Before a Joint Session of the Congress on Administration Goals, 2/27/01, p. 4).

But he went on to say, "Tax relief is right, and tax relief is urgent. The long economic expansion that began almost 10 years ago is faltering. … We must act quickly. … So I want to work with you to give our economy an important jump-start by making tax relief retroactive" (p. 5). Similarly, in a radio address on March 17, he made clear that although cyclical concerns were an argument for the tax cuts, their fundamental motive was philosophical: "For several months, economic indicators have pointed toward a slowdown …. It is only common sense to give our economy a boost in a slowdown. Yet tax

relief is more than common sense; it is a matter of principle. … I would be recommending these changes in any economic circumstance" (The President's Radio Address, 3/17/01, p. 1).

The 2002 *Economic Report* also focused first on long-run issues, and secondarily on the cyclical benefits of the timing of the cuts. For example:

> The President laid a strong foundation for growth in 2001 with the Economic Growth and Tax Relief Reconciliation Act. This package provides a powerful stimulus for future growth, with reductions in marginal tax rates that improve incentives and leave in the hands of Americans a greater share of their own money ….
>
> The timing of [the] reductions in withholding and rebates proved propitious: they added significant economic stimulus by boosting purchasing power in the hands of consumers during a period of sluggish economic activity (p. 44).

Views in Congress were similar to the administration's. The House and Senate both put the most emphasis on the philosophical case for cutting taxes when there was a surplus. In addition, they cited the benefits of an immediate tax cut because of short-term prospective economic weakness, and the long-run benefits of lower taxes. For example, the House report stated:

> The Committee bill makes the first down payment on President Bush's pledge to deliver $1.6 trillion in tax relief to the American people. …
>
> The Committee believes that providing tax relief to the American people is appropriate for a number of reasons. …
>
> The Federal income tax is intended to collect revenues to fund the programs of the Federal government. If more tax revenues are collected than are needed to fund the government, the Committee believes that at least a portion of the excess should be returned to the taxpayers who are paying Federal income taxes. …
>
> The Committee believes that high individual income tax rates reduce incentives for taxpayers to work, to save, and to invest and, thereby, have a negative effect on the long-term health of the economy. …
>
> Finally, there are signs that the economy is slowing. The Committee believes that immediate tax relief may encourage short-term growth in the economy by providing individuals with additional cash to spend (107th Congress, 1st Session, House of Representatives Report No. 107-7, 3/6/01, pp. 6-7).

The Senate report began with very similar language about returning the surplus, then discussed the value of short-term stimulus through immediate tax relief, and then discussed the long-term benefits of encouraging investment and helping small businesses (107th Congress, 1st Session, Senate Print 107-30, pp. 2-3).

In light of these considerations, it is appropriate to view the bill as consisting of two distinct items. The first is the tax cut that would have taken place if the reduction in 2001 had not occurred until January 1, 2002. This cut was similar to what Bush proposed during the 2000 campaign, and was clearly driven by philosophical considerations. Thus it is an exogenous, long-run action. The second is the tax cut that occurred in 2001. This cut was added to the plan in order to offset projected economic weakness, and so is an endogenous, countercyclical action. That is, the bill embodied a temporary, endogenous tax cut in 2001, and a permanent, exogenous tax cut in 2002.

To estimate the revenue effects of the bill, we combine the description of its provisions from the 2003 *Budget* (*Analytical Perspectives*, pp. 56-63) with estimates of the revenue effects of each major feature from CBO (The Budget and Economic Outlook: An Update, August 2001, p. 8). We also use some information from the 2002 *Economic Report* (pp. 44-45, 53).

Since the bill was signed in June 2001, we date it as occurring in 2001Q3. The most important retroactive feature of the bill was a new 10 percent tax bracket, retroactive to the beginning of 2001.

CBO estimated that the revenue effects of this feature, after some fluctuations, would settle down at $40 billion per year (p. 8), and gave the same figure for the value of the advance checks that were to be mailed out under this provision in 2001 (p. 7). The 2002 *Economic Report* gave a figure of $36 billion for the value of the checks (p. 44). We therefore estimate that there was a tax cut of $40 billion in 2001Q3, retroactive to 2001Q1. This corresponds to a tax cut of $120 billion at an annual rate in 2001Q3 followed by a tax increase of $80 billion in 2001Q4.

The other major feature of the bill was across-the-board reductions in marginal tax rates. Rates were reduced one-half percentage point retroactive to January 1, 2001 and by an additional one-half percentage point on January 1, 2002. (The bill provided for further reductions in 2004 and 2006, but these provisions were modified by the Jobs and Growth Tax Relief Reconciliation Act of 2003.) The 2002 *Economic Report* implicitly gave a figure of $8 billion at an annual rate for the revenue loss from each of the two one-half percentage point reductions (pp. 44-45). CBO's figures were broadly similar, though their time pattern is variable in a way that is hard to understand. We therefore use the figures from the *Economic Report* as the basis of our estimates of the effects of these provisions. Thus we estimate that there was a tax cut of $8 billion in 2001Q3 retroactive to 2001Q1 (which corresponds to a cut of $24 billion in 2001Q3 followed by a rise of $16 billion in 2001Q4), and an additional cut of $8 billion in 2002Q1.

The only other significant retroactive feature of the bill was an increase in the child credit retroactive to January 1, 2001. (Provisions calling for later increases were modified by the 2003 tax bill.) CBO estimated that the increase would reduce revenues by $9 billion in the first full fiscal year it would be in effect (p. 8).[25] Thus we estimate that there was a tax cut of $9 billion in 2001Q3 retroactive to 2001Q1 (that is, a cut of $27 billion in 2001Q3 followed by an increase of $18 billion in 2001Q4).

Most of the other features of the bill (again neglecting provisions for later changes that were altered by the 2003 tax bill) went into effect at the beginning of 2002. CBO's estimates indicated a revenue loss from these provisions in the first full fiscal year they were to be in effect of $18 billion, with little change after that (p. 8). We therefore estimate a tax cut of $18 billion in 2002Q1.

Putting all this together yields a tax cut of $171 billion at an annual rate in 2001Q3, an increase of $114 billion at an annual rate in 2001Q4, and a cut of $26 billion at an annual rate in 2002Q1. Recall, however, that the changes in 2001 are endogenous, while the changes in 2002 are exogenous. Thus the endogenous portion consisted of a reduction of $171 billion in 2001Q3, an increase of $114 billion in 2001Q4, and an additional increase of $57 billion in 2002Q1. The exogenous portion was a cut of $83 billion (the total amount that revenues were reduced) in 2002Q1. If one chose to neglect the retroactive elements, the endogenous component would be a cut of $57 billion in 2001Q3 followed by an increase of $57 billion in 2002Q1. The exogenous component would again be a cut of $83 billion in 2002Q1.

Both the endogenous and exogenous components mainly reduced marginal tax rates. The endogenous component was temporary. The horizon of the exogenous component was substantial, although its exact horizon was somewhat ambiguous. For reasons related to Congressional rules, the entire bill was legislated to expire at the end of 2010. It is clear, however, that the advocates of the cuts intended them to be permanent.

<u>Job Creation and Worker Assistance Act of 2002</u>

Signed: 3/9/02
Change in Liabilities (excluding retroactive changes):
2002Q2 –$36.9 billion (Endogenous; Countercyclical)
Change in Liabilities (including retroactive changes):
2002Q2 –$110.7 billion (Endogenous; Countercyclical)
2002Q3 +$73.8 billion (Endogenous; Countercyclical)

[25] Specifically, we sum CBO's estimates for fiscal 2003 for estate and gift taxes, pension and IRA provisions, education incentives, AMT exemption, and "other tax reductions."

Present Value:

2002Q1 –$37.23 billion (Endogenous; Countercyclical)

The purpose of this bill was to offset adverse macroeconomic shocks, especially those resulting from the terrorist attacks of September 11, 2001. For example, on October 26, 2001, Bush said, "there's another front on the war, as well, and that's our economy. … [I]t's clear that our economy has been shocked." He went on to say: "We believe the best way to stimulate and restore confidence to the economy is not through additional spending, but through tax relief" (Remarks to Business, Trade, and Agricultural Leaders, 10/26/01, p. 2). And in his State of the Union address, he stated, "our economy is in recession," and went on to say, "[t]he way out of this recession … is to grow the economy by encouraging investment in factories and equipment, and by speeding up tax relief so people have more money to spend. For the sake of American workers, let's pass a stimulus package" (Address Before a Joint Session of the Congress on the State of the Union, 1/29/02, pp. 1, 4). The 2002 *Economic Report* stated: "The terrorist attacks introduced new risks into the economic environment. … The Administration has proposed measures designed to provide economic growth insurance, or economic stimulus. The central focus of this effort is to address the immediate needs of those displaced workers directly affected by the recession and the terrorist attacks, while also mitigating the effects of these events on the broader economy" (p. 47). Similarly, the House report on the bill said, "the September 11, 2001 attacks have caused adverse effects to the U.S. economy. Thousands of Americans have lost jobs. Consumer confidence and investor confidence are low. The Committee believes that it is necessary to spur economic growth and job creation and help struggling business and unemployed workers" (107th Congress, 1st Session, House of Representatives Report No. 107-251, 10/17/01, p. 18).

The only complication in determining the motivation for the bill is that by the time it was signed in March, its proponents were less confident of the need to offset weakness in the macroeconomy. Nonetheless, they continued to place considerable emphasis on the countercyclical benefits of the bill. For example, in signing the legislation, Bush stated: "We're seeing some encouraging signs in the economy, but we can't stand by and simply hope for continued recovery. We must work for it. We must make sure that our recovery continues and gains momentum" (President Signs Stimulus Bill During Live Radio Address, 3/9/02, p. 1). The 2003 *Economic Report* described the bill as "a tax policy especially appropriate for the fledgling recovery" (p. 53). The Congressional debate also contained numerous references to the weak state of the economy. For example, Representative English referred to the bill as "the right mix in order to try to provide some relief for an economy that is still dragging and still very much at risk" (*Congressional Record*—House, 107th Congress, 2d Session, 148 Cong Rec H 742, 3/07/02). Senator Baucus said that "the state of the economy in the last year and the number of people who are out of jobs and need help" made stimulus appropriate, and that although it was likely that "we are turning the corner," the bill provided valuable "insurance" (*Congressional Record*—Senate, 107th Congress, 2d Session, 148 Cong Rec S 1689, 3/08/02).

Thus the initial motivation for the tax cut was almost entirely countercyclical, and countercyclical considerations remained central well after it was proposed and were very important when it was ultimately passed. We therefore classify the cut as an endogenous, countercyclical action.

The most detailed descriptions of the provisions and expected revenue effects of the act are provided by two Joint Committee on Taxation documents (Technical Explanation of the "Job Creation and Worker Assistance Act of 2002," JCX-12-02, 3/6/02; Estimated Revenue Effects of the "Job Creation and Worker Assistance Act of 2002," JCX-13-02, 3/6/02; see also 2004 *Budget*, *Analytical Perspectives*, pp. 60-65). In estimating the size of the tax cut, we omit revenue losses from extensions of provisions that were scheduled to expire and from increases in unemployment insurance spending that were officially classified as reductions in revenue. With these omissions, the revenue effect of the act in the first full fiscal year it was scheduled to be in effect (fiscal 2003) was a loss of $36.9 billion (JCX-13-02). Since the act was signed in March, we date it as occurring in 2002Q2. Its most important provisions were retroactive to September 11, 2001—that is, for about two quarters. We therefore estimate the revenue effect as a reduction of $110.7 billion in 2002Q2 followed by an increase of $73.8 billion in 2002Q3. If

one neglected the retroactive feature, there would have been only a cut of $36.9 billion in 2002Q2.

By far the most important provision of the bill allowed firms to claim "bonus depreciation" on investment undertaken on September 11, 2001 or later. This provision was scheduled to be temporary. Thus the act consisted mainly of temporary incentives for investment. The exact details of the expiration were modified by the 2003 tax bill.

Jobs and Growth Tax Relief Reconciliation Act of 2003

Signed: 5/28/03
Change in Liabilities (excluding retroactive changes):
2003Q3 –$126.4 billion (Exogenous; Long-run)
2005Q1 +$68.1 billion (Exogenous; Long-run)
Change in Liabilities (including retroactive changes):
2003Q3 –$316.8 billion (Exogenous; Long-run)
2003Q4 +$190.4 billion (Exogenous; Long-run)
2005Q1 +$68.1 billion (Exogenous; Long-run)
Present Value:
2003Q2 –$60.64 billion (Exogenous; Long-run)

The tax cuts in the Jobs and Growth Tax Relief Reconciliation Act were motivated by both long-run and short-run considerations. The long-run motivation for the tax cut was the belief that lower marginal tax rates and lower taxes on capital income would increase long-run growth. The 2003 *Economic Report* stated that one purpose of the bill was "to enhance the long-term growth of the economy" (p. 54). It specifically cited "improving the long-term efficiency of capital markets" by cutting dividend taxes and "increas[ing] growth incentives for small business owners" by lowering marginal rates (p. 55). In announcing his proposals, Bush said that they "are essential for the long run … to lay the groundwork for future growth and future prosperity" (Remarks to the Economic Club of Chicago in Chicago, Illinois, 1/7/03, p. 4). He specifically cited the changes in the taxation of capital income (p. 3). In signing the bill, he emphasized the philosophical and long-run benefits of lower taxes:

> Tax relief matters a lot to the average citizen here in America. This tax bill will make it easier for moms and dads to save for their children's education, and that's vitally important for the future of this country. The benefits of the Jobs and Growth Act will also go to investors. The top capital gains tax rate will be reduced by 25 percent, which will encourage more investment and risktaking, and that will help in job creation. … [R]educing the tax rate on dividends will also increase the wealth effect around America and will help our markets. … By cutting individual tax rates and by delivering other incentives for investment in new equipment, 23 million small-business owners will receive an average tax cut of $2,209 (Remarks on Signing the Jobs and Growth Tax Relief Reconciliation Act of 2003, 5/28/03, p.2).

But short-run considerations were also a crucial motivation for the tax cuts. For example, in announcing his proposals, paralleling the statement that they were essential for the long run, Bush said, "This growth-and-jobs package is essential in the short run; it's an immediate boost to the economy" (1/7/03, p. 4).

What is harder to determine is whether the short-run goal was to offset prospective economic weakness or to achieve above-normal growth in order to bring output closer to potential and reduce unemployment. An example of a statement suggesting that the goal was to achieve above-normal growth comes from a radio address on January 11, 2003. Bush said, "Our country has made great progress in restoring investor confidence and putting the recession behind us. We cannot be satisfied, however, until

… every person who wants to work can find a job" (The President's Radio Address, 1/11/03, p. 2). Similarly, on May 6, he stated: "We need tax relief that creates the greatest number of jobs. The goal is to create a million new jobs by the end of next year." He went on to say: "Our economy is growing. We've got many strengths in our economy. … But … there's unmet potential in this economy. It's not growing fast enough. In spite of the strengths, there's still people looking for work, and we've got to do more" (Remarks to the Tax Relief Coalition, 5/6/03, pp. 1-2).

At other times, however, Bush appeared to suggest that in the absence of stimulus, growth would be below normal. His strongest statement to this effect was in his announcement of the proposals on January 7: "Americans carry a heavy burden of taxes and debt that could slow consumer spending. … Consumer spending accounts for about 70 percent of our economy. It has been the driving force of our recovery. Yet there are warning signs." He went on to say: "The unemployment rate today is 6 percent. That's low for an economy coming out of recession. It's higher than it should be, and the unemployment rate is projected to rise even further in the short run" (1/7/03, pp. 2-3). His other statements consistent with this view were not as clear. For example, on November 4, 2002, he said, "our economy is kind of bumping along. It's not as strong as it should be. It's bumping and bumping" (Remarks in Cedar Rapids, Iowa, 11/4/02, p. 2). On February 12, 2003, he said, "Our economy is growing … but it's not growing strong enough," and he argued that "the economy needs a little extra oomph" (Remarks to Small Investors in Alexandria, Virginia, 2/12/03, p. 2).

Although Bush's statements do not make it clear whether the short-run motivation for the plan was to return growth to normal or to achieve above-normal growth, two other administration documents provide strong support for the view that the goal was to produce above-normal growth. The first is the 2003 *Economic Report*. In discussing the president's proposals, it stated: "At the start of 2003 the consensus of private forecasters predicted accelerating growth in real GDP over the course of the year, which would raise investment, reduce unemployment, and increase job growth. This consensus view is reflected in the Administration's outlook" (p. 54). The *Economic Report* then discussed various reasons the economy might perform less well than these projections, and said, "To insure against these near-term risks while boosting long-term growth, the President has proposed a focused set of initiatives" (pp. 54-55). Thus, the *Economic Report*'s best estimate was not that growth would be below normal, and it viewed one purpose of the tax cuts as being to ensure rapid growth.

The second document is the 2004 *Budget*, which was released in February 2003. In discussing the economic assumptions underlying the budget (which assumed adoption of the president's proposals), it stated, "The pace of economic activity is expected to gather momentum during 2003 …. During the next few years, real growth is projected to exceed the Nation's long-term potential, which is estimated at 3.1 percent. The unemployment rate is expected to decline" (*Analytical Perspectives*, p. 25).

The primary Congressional motivations for the tax cuts were long-run and philosophical considerations. The only Congressional report that discussed motivation focused on the reasons for the individual provisions of the bill (108th Congress, 1st Session, House of Representatives Report No. 108-94, 5/8/03). Its discussions of the reductions in capital gains and dividend taxes were entirely about long-run and efficiency issues (pp. 29-31). Its discussion of accelerating tax changes for married couples was solely about principle and fairness (pp. 15-17). In its discussion of accelerating scheduled reductions in tax rates, the report devoted two paragraphs to the incentive and long-run benefits of lower marginal rates, and then said, "Finally, there are signs that the economy is not growing as fast as desirable. The Committee believes that immediate tax relief could encourage growth in the economy by providing individuals with additional tax relief" (p. 20). Similarly, its discussion of accelerating the scheduled increase in the child credit focused mainly on general benefits of tax cuts, and added that the "immediate tax relief may encourage short-tern growth in the economy by providing individuals with additional cash to spend" (p. 13). Short-run considerations received primary emphasis only in the discussion of extending and expanding the bonus depreciation provisions of the 2002 tax cut: "The Committee believes that increasing and extending the additional first-year depreciation will accelerate purchases of equipment, promote capital investment, modernization, and growth, and will help to spur an economic recovery" (p. 23).

To the extent that short-run considerations were a motive on the Congressional side, there is little evidence about whether the goal was to offset expected weakness or spur above-normal growth. Aside from the comments about "signs that the economy is not growing as fast as desirable" (p. 20) and the desire "to spur an economic recovery" (p. 23), most of the remarks about the short run consisted of vague references to stimulus.

Thus on the administration's side, long-run considerations were important, and the weight of the evidence suggests that the short-run motive was not to offset prospective macroeconomic weakness, but to push growth above normal. On Congress's side, long-run considerations were primary, and there is no clear evidence of a belief that the cuts were needed to return growth to normal. Based on these considerations, we classify the tax cuts resulting from the bill as exogenous, long-run actions.

The bill was signed on May 28, 2003. We therefore date the initial changes as occurring in 2003Q3. To estimate the revenue effects of the bill, we combine the descriptions of its provisions from the 2005 *Budget* (*Analytical Perspectives*, pp. 240-243) with estimates of the expected revenue effects of each provision from the Conference report (108th Congress, 1st Session, House of Representatives Report No. 108-126, 5/22/03, pp. 287-288).

The provisions of the bill varied considerably in their timing. First, several provisions were retroactive to January 1, 2003 and were scheduled to expire on January 1, 2005: an expansion of the 10 percent tax bracket, reductions in rates on married couples, and an increase in the child credit. These provisions were expected to reduce revenues by a total of $79.468 billion over their two-year lives. This implies a tax cut of one-half of this amount, or $39.7 billion, at an annual rate. The cut occurred in 2003Q3, and was retroactive for two quarters. This corresponds to a tax cut of $119.1 billion at an annual rate in 2003Q3, followed by an increase of $79.4 billion in 2003Q4. These provisions were extended by later legislation, and so did not result in a tax increase at the beginning of 2005.[26]

Second, the bill advanced the general reductions in marginal rates called for in the 2001 tax cut. The overall expected revenue effect of this provision relative to the 2001 legislation was a reduction of $74.185 billion. Under the 2001 bill, marginal rates were scheduled to fall at the beginning of 2004, and to fall again by a similar amount at the beginning of 2006. The 2003 bill made both reductions retroactive to the beginning of 2003. Thus relative to prior law, this provision reduced taxes by some amount in 2003, reduced them by only about half that amount in 2004 and 2005, and did not affect them after that. Thus roughly half of the overall expected revenue effect of this provision (relative to prior law) would occur in 2003. This suggests a tax cut of one-half of $74.185 billion, or $37.1 billion, at an annual rate in 2003Q3 retroactive for two quarters. This corresponds to a cut of $111.3 billion in 2003Q3 followed by an increase of $74.2 billion in 2003Q4. As with the previous provisions, the reductions in marginal rates were extended beyond 2004 by later legislation.

Third, the bill lowered taxes on dividends and capital gains. These provisions were again retroactive to January 1, 2003. Unlike the others, however, they were not scheduled to expire until 2008. We therefore use the estimate of their expected revenue effects in their first full fiscal year (fiscal 2004) as the basis of our revenue estimates. Specifically, since the cuts were expected to reduce revenues by $18.4 billion in fiscal 2004, we estimate that there was a tax cut of $18.4 at an annual rate in 2002Q3, retroactive for two quarters. Because of the retroactive feature, this corresponds to a tax cut of $55.2 billion in 2003Q3 followed by an increase of $36.8 billion in 2003Q4.

The final major provisions of the bill expanded and extended the bonus depreciation features of the 2002 tax cut. The bonus features were raised by roughly two-thirds (effective essentially

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[26] The natural alternative to taking the total revenue effects and dividing by two is to use the figures for the only full fiscal year the provisions were expected to be in effect, which was fiscal 2004. This yields a figure of $39.2 billion, which is extremely close to our estimate of $39.7 billion. However, this estimate reflects a combination of an unusually low figure for the effects of the increase in the child credit in fiscal 2004 (resulting from the fact that most of the 2003 benefits of this provision were distributed through advance checks before the beginning of fiscal 2004) and unusually high figures for the other provisions (presumably reflecting the fact that many households did not obtain the 2003 benefits of these provisions until they filed taxes in April 2004).

contemporaneously with the signing of the bill), and the expiration date was moved from September 11, 2004 to December 31, 2004. The expected effect of these changes on revenues over fiscal years 2003 through 2005, relative to the 2002 bill, was a reduction of $62.9 billion. We do not have separate estimates of the revenue effects of the extension (which did not change taxes) from those of the expansion. We therefore estimate that the extension lowered revenues at the same rate as the initial bonus depreciation, or $36.9 billion at an annual rate. Since the extension was for roughly 0.30 of a year, this suggests that about $11.1 billion of the overall revenue effect was from the extension, and that $51.8 billion was from the expansion. Since the expansion covered about 1.66 years, this suggests a tax cut of approximately $31.2 billion at an annual rate. Note that this is consistent with the fact that the expansion was somewhat smaller than the original bonus depreciation.

Unlike the other provisions of the bill, the bonus depreciation was allowed to expire at the end of 2004. Thus, this provision resulted in a tax cut of $31.2 billion in 2003Q3, followed by a tax increase of $31.2 billion plus $36.9 billion, or $68.1 billion, in 2005Q1 when the bonus depreciation expired.

Combining these estimates yields a tax cut of $316.8 billion in 2003Q3, a tax increase of $190.4 billion in 2003Q4, and a tax increase of $68.1 billion in 2005Q1. If one chose to neglect the retroactive features, there would have been a tax cut of $126.4 billion in 2003Q3 and a tax increase of $68.1 billion in 2005Q1.

As this discussion makes clear, the bill made several major changes to the tax code. Most notably, it reduced marginal rates, lowered taxes on dividends, and increased investment incentives. The investment incentives were clearly intended to be temporary. The other provisions were legislated as temporary (although the dividend cuts were scheduled to last a substantial time), but it is clear that their supporters intended them to be permanent.

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