NBER WORKING PAPERS SERIES

INPUTS TO TAX POLICYMAKING: THE SUPPLY SIDE, THE DEFICIT, AND THE LEVEL PLAYING FIELD

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Working Paper No. 3507

NATIONAL BUREAU OF ECONOMIC RESEARCH
1050 Massachusetts Avenue
Cambridge, MA 02138
November 1990

NBER Working Paper #3507
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ABSTRACT

Although supply side theory may have been obvious to economists, it instigated a major change in the nature of tax policymaking through marginal rate cuts in both the Economic Recovery Tax Act of 1981 and the Tax Reform Act of 1986. Also, the 1981 bill was the culmination of an era in which policymakers could use expected revenue increases to enact rate cuts as well as special tax provisions. The deficit became a force in tax policymaking not only because of revenue losses from the 1981 bill, but because the indexation of rate brackets turned projected future surpluses into projected future deficits. Finally, starting in 1982, the legacy of special tax provisions led to cries for a level playing field that would treat similar taxpayers more equally and improve efficiency in the allocation of resources.

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Inputs to Tax Policymaking: The Supply Side, the Deficit, and the Level Playing Field

Thousands of issues swirled in the whirlwind of tax policymaking in the Reagan era, and any effort to sort them out must inevitably be hampered by differences in perspective on their relative importance, their impacts, and even their definitions. Taxonomy and classifications can differ. After some reflection, however, it seems to me that most of the important issues can be categorized into three major forces that shaped the making of tax policy during the decade.

First, tax policy in the 1980's was profoundly affected by the "supply side" view popularized in the late 70's by Arthur Laffer, Jude Wanniski, and Rep. Jack Kemp. They pointed out that high personal marginal tax rates encourage taxpayers to stay home from work, enter the cash or barter economy, engage in tax shelters, or re-arrange financial affairs to avoid paying tax. A reduction in the rate of tax would then have feedback effects that increase the tax base and mitigate the fall in revenue. Some define "supply side" by the view that tax rate reductions have these advantageous feedback effects, and others define it by the extreme view that the tax base rises by more than the tax rate falls. In the latter case, the government could actually collect more revenue by lowering the rate of tax (see papers in Meyer, ed., 1981). Whatever its definition, however, the "supply side" clearly propelled policymakers into the Economic Recovery Tax Act of 1981 as well as the additional marginal rate reduction of the Tax Reform Act of 1986.

Second, the 1980's have been characterized by persistent large government deficits. Some point to the large tax cuts of 1981 as the

"cause" of these deficits, while others condemn the failure to reduce spending. Whatever "caused" these persistent government deficits, however, they undoubtedly reshaped the making of tax policy after 1981. Up to this point, inflation in an unindexed tax system continually pushed taxpayers into higher brackets, increased real revenues automatically, and allowed Congress to enact successive tax "reduction" legislation. Tax policymakers simply did not have to worry about obtaining enough revenue (see e.g., McLure, forthcoming). I will emphasize the importance of the indexing provisions of the 1981 Act as the beginning of an era that instead has a perennial shortfall in revenue. The current process of tax policymaking is very different because of it.

Third, although I appeal to a rather broad definition, the "level playing field" evolved during this period to encompass notions of fairness, economic efficiency, and even simplicity. Some companies and individuals were observed to pay high effective tax rates while others with the same income paid little or no tax at all. Economists pointed to these differences as a source of resource misallocation and economic inefficiency in production, a view which I call the efficiency version of the level playing field. Others simply viewed these differences as unfair, a view which I call the equity version of the level playing field. This view relates to "horizontal equity," the equal treatment of those with the same income, in contrast to the "vertical equity" treatment of those with different incomes. Under either version of the level playing field, there was growing support for the idea that government should get out of the business of deciding which investments are most productive. This idea was certainly voiced earlier, but not

until the 1980's was it assimilated, digested, and accepted (see papers in the Summer 1987 issue of the Journal of Economic Perspectives). It became a driving force in the tax increases of 1982-84, the Tax Reform Act of 1986, and beyond.

I organize discussion around these three headings primarily because, as I will argue, they were wholly new forces in the field of tax policymaking. Certainly other perennial issues were important during this period as well, and I take this opportunity to note topics not covered in this paper. Since I emphasize the domestic economy, readers interested primarily in foreign repercussions should see Grubert and Mutti (1987) or McLure (1990). Those interested in the politics of tax reform should see Witte (1985), Stewart (1990), or Conlan, Wrightson, and Beam (1990). For the effects of the budget process on tax policy, see Rudder (1983), or Merrill, Collender, and Cook (1990). On issues of complexity, see McLure (forthcoming).

Also, since I emphasize the economic thinking of policymakers during debates about proposals, I do not discuss the actual effects of tax changes. For effects of the 1981 Act on the distribution of tax burdens, see the U.S. Congressional Budget Office (1987), the U.S. House of Representatives (1990), and Lindsey (1990). For many other economic effects of the 1986 Act, see the U.S. Treasury Department (1987), and all of the papers in the collection edited by Slemrod (1990).

Details of the tax laws themselves can be found in various publications of the U.S. Congress and Commerce Clearing House. Details of the arduous process toward just one piece of legislation, the 1986 Act, can be found in books by Birnbaum and Murray (1987), and by Conlan, Wrightson, and Beam (1990). Since this one chapter must cover legisla-

tion throughout the 1980s, it cannot do justice to these details. Instead, I will discuss selected issues, especially as they relate to the supply side, the deficit, and the level playing field. Primarily, however, I will argue that it is most unusual to have the phenomenon of three such wholly novel developments shaping policy in one decade.

I. Some Relevant Background

To imagine the debate around the turn of the century about the proposed sixteenth amendment's direct tax on incomes, one only needs to consider the current debate about a possible tax on value added: the new tax would be a powerful source of revenue even at low rates and might allow considerable growth of government if imposed at higher rates. **Table 1** outlines a history of just the top marginal income tax rate, the additional tax paid if a person in the highest income bracket were to earn one more dollar. This top rate starts at only 7 and then 15 percent, but it jumps significantly at the First World War and again near the Second World War. Remarkably, the table shows that the top personal marginal tax rate from 1944 until 1964 was over 90 percent.

Since this paper is supposed to discuss what prompted tax policy changes since 1980, it will address the specific question: What prompted the dramatic reduction in personal marginal tax rates from a top 70 percent rate in 1980 to a top 33 percent rate by 1988? One easy, and probably correct, answer is to point out the increasing popularity around 1980 of the supply side view that high marginal tax rates can stifle incentives to work and invest. This review of prior history, however, turns the question on its head. The inverted question is much more difficult, and perhaps unanswerable: What in the world prompted tax

Table 1
The Top Federal Marginal Personal Income Tax Rate in the U.S.

Years	Top Rate (%)
1913-15	7
1916	15
1917	67
1918	77
1919-21	73
1922-23	58
1925-31	25
1932-35	63
1936-39	79
1940-41	81
1942-43	88
1944-45	94
1946-51	91
1952-53	92
1954-63	91
1964	77
1965-67	70
1968	75.25
1969	77
1970	71.75
1971-81	70
1982-86	50
1987	38
1988-	33

Source: Tax Foundation, Facts and Figures on Government Finance (1988), Table C36. See footnotes in that publication for some surcharges and special rules.

Notes: From 1944 to 1963, when the top marginal rate exceeded 90 percent, maximum effective rate limitations kept the total tax as a fraction of taxable income (the average tax) below 90 percent. This cap varied between 77 percent (1948-49) and 88 percent (1952-53). Also, these top bracket rates include surcharges of 7.5 percent in 1968, 10 percent in 1969, and 2.5 percent in 1970. They exclude the minimum tax (enacted in 1969) and the 50 percent maximum rate on earned income (enacted in 1971).

policymakers during the twenty year period from 1944 until 1964 to enact personal marginal tax rates over 90 percent?

For two reasons, the top rate is a misleading indicator of the overall impact of the tax. First, the revenue impact of the income tax depends much more on the taxation of middle brackets than of just the top bracket. Pechman (1987, p. 375) shows that 96.7 percent of tax returns in 1980 (paying 68.7 percent of the tax) were in brackets below $50,000 of adjusted gross income. Second, the link between rates and revenues is broken by exemptions, deductions, and a host of special provisions. Pechman (1987, p.66) estimates that "In 1947 only about 40 percent of personal income was subject to tax; this rose to 50 percent in 1969 and then declined to 45-47 percent between 1971 and 1984." For both of these reasons, the total federal individual income tax after 1947 was never more than 11.3 percent of personal income, a high which it reached in 1981.

Table 2 shows more detailed information about the personal income tax between 1947 and 1985. The first column repeats the top bracket rate, from Table 1, and the second column shows the tax as a percentage of personal income. For the years shown, this ratio hit a low of 7.0 percent in 1949, rose to 10.2 percent in 1952, and fell below that level for the next fifteen years. It then reached highs of 11.2 in 1969 and 11.3 in 1981. The third column shows the personal income tax as a percentage of total federal receipts. For virtually all of the years shown, this fraction varied only between 41 and 48 percent, reaching its high in 1982. The relative stability of the personal tax, however, masks the falling corporate tax share and the rising payroll tax share of federal receipts.

Table 2
Personal Income Tax Rates and Revenues

Year	Top Bracket Rate %	Tax as % of Personal Income	Tax as % of Federal Receipts
1947	91	9.5	46.5
1948	91	7.4	44.0
1949	91	7.0	42.8
1950	91	8.1	36.7
1951	91	9.4	41.5
1952	92	10.2	46.7
1953	92	10.1	46.5
1954	91	9.1	45.7
1955	91	9.4	43.9
1956	91	9.7	43.2
1957	91	9.7	44.5
1958	91	9.3	43.6
1959	91	9.9	46.3
1960	91	9.6	44.0
1961	91	9.9	43.8
1962	91	9.9	45.7
1963	91	10.1	44.7
1964	77	9.3	43.2
1965	70	9.0	41.8
1966	70	9.3	42.4
1967	70	9.8	41.3
1968	75.25	10.8	44.9
1969	77	11.2	46.7
1970	71.75	10.1	46.9
1971	70	9.6	46.1
1972	70	9.5	45.7
1973	70	9.8	44.7
1974	70	10.2	45.2
1975	70	9.5	43.9
1976	70	9.8	44.2
1977	70	9.9	44.3
1978	70	10.4	45.3
1979	70	10.6	47.0
1980	70	11.1	47.2
1981	70	11.3	47.7
1982	50	10.4	48.2
1983	50	9.7	48.1
1984	50	9.7	44.8
1985	50	9.8	45.6

Source: Pechman (1987, pp. 313-4, 346, 370), and Steuerle and Hartzmark (1981, p. 160).

Notes: From 1944 to 1963, when the top marginal rate exceeded 90 percent, maximum effective rate limitations kept the total tax as a fraction of taxable income (the average tax) below 90 percent. This cap varied between 77 percent (1948-49) and 88 percent (1952-53). Also, these top bracket rates include surcharges of 7.5 percent in 1968, 10 percent in 1969, and 2.5 percent in 1970. They exclude the minimum tax (enacted in 1969) and the 50 percent maximum rate on earned income (enacted in 1971).

Thus the top 90 percent personal rate was perhaps not viewed as such a problem: it was good for the perception that rich people paid plenty of tax, but less than a tenth of one percent of taxpayers ever had to pay at that rate. Virtually anyone with that much income would be doing something to avoid that bracket. With benefit of hindsight, however, this logic dovetails perfectly with the supply side view that high rates are counterproductive by inducing changes in behavior. Incentives clearly were stifled for those allowed to keep less than a dime out of a dollar's extra effort. In particular, Ronald Reagan tells of making movies during this period with over a 90 percent top bracket: "So we all quit working after four pictures and went off to the country" (Stockman, 1987, p.11). The perceived success of the Kennedy-Johnson cut in the top rate from 91 to 70 percent in 1964 was a major factor in the subsequent effort in 1980 to cut the top rate to 50 percent.

Another important feature of the prior tax code was that inflation and not just real growth would push poor households onto the tax roles and middle income taxpayers into higher brackets. Minarik (1985, p.37) shows that from 1965 to 1980, the marginal rate on a family with the median income increased from 17 percent to 24 percent, while that on a family with twice the median income increased from 22 to 43 percent. Inflation did not increase the marginal rate of those already in the top bracket, but it did increase their tax as a fraction of income (see Steuerle and Hartzmark, 1981). As a result, legislators always seemed to find themselves with surplus revenue that could be used for some combination of increased spending or decreased taxes:

> In the seven-year period from 1975 through 1981, eight of the eleven major revenue measures (73 percent) enacted by Congress

> were estimated by the Treasury Department to lose revenues in the first three fiscal years after enactment, with an average revenue loss of $27 billion. (Merrill, Collender, and Cook, 1990, p.37)

Very little rate reduction occurred from 1965 to 1980, so the primary form of tax reduction was through additional credits or deductions. Special Analysis G of the U.S. Budget documents the growth of "tax expenditures," the revenues lost from special tax provisions that might have been direct expenditures instead. Without these tax expenditures, personal tax revenues would have been 50 percent higher in 1974, almost twice as high in 1984, and over twice as high in 1986. Tax expenditures sometimes exceeded 45 percent of direct federal outlays (but the 1986 Act cut them to 34 percent of those outlays).

This is not to say that the government often had a surplus, for the money was most often spent or returned to taxpayers before it was ever collected. The point is that revenues were always projected to rise until a future year in which a surplus was expected. Table 3 shows, from 1976 to 1989, the deficit or surplus from the past year and the current year, and the projected deficit or surplus for the next five years. In the late seventies, the current deficit was always projected to turn into a surplus within those five years. The above quote makes clear that a tax reduction such as the 1981 Act was not necessarily unusual, except perhaps for the extent of the rate cut. The Act included indexing after 1985, however, so that inflation would no longer push taxpayers into higher brackets. The result is a fundamental shift in the nature of the policy problem, as shown in Table 3: after 1981, the budget is always projected to remain in deficit. Until the row for 1986 (the 1987-91 projection), those deficits were even expected to rise

Table 3
CBO Baseline Budget
Deficit (-) or Surplus (+)
for Fiscal Years, As a Percentage of GNP

Report Date	Prior Year	Current Year	First Year	Second Year	Third Year	Fourth Year	Fifth Year
1976a,c	-2.9	-4.7	-2.8	-1.6	1.6	1.8	1.8
1977c	-3.9	-2.8	-2.2	-0.7	0.5	1.7	2.7
1978c	NA	NA	-1.7	-0.4	0.9	2.0	2.8
1979d	-2.4	-1.8	-1.9	-1.1	0.2	1.2	2.4
1980	-1.2	-1.8	-0.8	-0.6	0.0	0.0	0.1
1981b,d	-2.2	-2.1	-2.2	NA	NA	NA	NA
1982	-2.7	-4.2	-5.1	-5.4	-5.4	-5.6	-5.4
1983	-4.2	-6.6	-6.1	-6.0	-6.0	-6.0	-5.9
1984	-6.4	-5.7	-5.3	-5.4	-5.7	-5.9	-6.3
1985	-5.2	-5.6	-5.2	-5.2	-5.1	-5.2	-5.3
1986	-5.4	-5.0	-4.0	-3.4	-2.8	-2.1	-1.7
1987	-5.3	-4.0	-3.6	-3.2	-2.5	-1.9	-1.4
1988	-3.4	-3.4	-3.5	-3.1	-2.8	-2.5	-2.1
1989	-3.2	-3.0	-2.6	-2.4	-2.2	-2.0	-1.7

a Average of path A and B forecasts (5 and 6 percent GNP growth assumptions).
b CY 1981-1982 GNP estimated as average of published range.
c FY GNP estimated as 25% of prior and 75% of future CY GNP forecasts (50% of prior and future CYs used for FY 1976).
d Calculated by subtracting outlays from revenues, both as a percent of GNP.

Source: Merrill, Collender, and Cook (1990). For their source, they refer to: CBO, The Economic and Budget Outlook, various issues. Total deficit includes off-budget items.

as a fraction of GNP. As a consequence,

> in the following seven years of 1982 through 1988, fourteen of the seventeen major revenue measures (82 percent) were estimated to raise revenue in the first three years after enactment, with an average revenue gain of $15 billion. (Merrill, Collender, and Cook, 1990, p. 37)

Thus 1981 represents a watershed year in the making of tax policy, from an era of constantly projected surpluses to one of constantly projected deficits. As discussed below, the making of tax policy would never be the same.

Policymakers used the excess revenue during the postwar period not just to offset bracket creep in the personal tax system, but to provide additional investment incentives in the corporate tax system. Congress in 1954 first introduced accelerated methods of depreciation such as double-declining-balance or sum-of-the-years'-digits. Then in 1962 the Treasury issued "Guidelines" with a 30 to 40 percent shortening of previously suggested Bulletin F lives, and the Congress enacted the first investment tax credit (ITC) for equipment. In 1971, the Asset Depreciation Range (ADR) permitted a 20 percent reduction from the Guideline lifetimes. Some acceleration was perhaps intended to offset the reduction in real allowances caused by increasing inflation, but still the corporate income tax fell from 30.3 percent of federal revenue in 1954 to 12.5 percent in 1980. The 1981 Act further reduced depreciation lifetimes with the Accelerated Cost Recovery System (ACRS), and the corporate income tax fell to 10, 8, and 6 percent of federal revenues in 1981, 82, and 83 (Pechman, 1987, p.370).[1] Thus the postwar

[1]Note that the 1981 Act did not reduce the statutory corporate tax rate.

before the investment tax credit was enacted, show effective tax rates of 59 percent for equipment and 45 percent for buildings or inventories. By 1980, with the ITC, these were 18 percent for machinery, 41 percent for buildings, and 47 percent for inventories. In the calculations of King and Fullerton (1984, p. 252) for just property taxes and personal taxes in 1980, the effective rate for machinery is 34 percent. Thus even by 1980 the corporate tax system was providing a net subsidy for machinery. Under the fully phased-in version of the 1981 Act, assuming enough tax liability that all credits and deductions could be used, the total effective tax rate on machinery was a negative 5.5 percent (Table 4). The corporate subsidy was so large that it more than offset positive property taxes and personal taxes on corporate-source income.[3]

As discussed more below, the 1981 Act was intended to provide more investment incentives for capital formation which, in turn, would enhance future productivity. The familiar course for such incentives was to apply them primarily to equipment. But the 1981 Act carried this logic to an extreme, such that the effective tax rate on machinery was -5.5, the rate on buildings was +30 percent, and that on inventories or land was still +47 percent. Averaged over these assets, as shown in Table 4, an investment financed by new share issues faced a marginal effective tax rate of +85 percent, and one financed by debt faced -32 percent. As a consequence, some equipment-intensive or debt-intensive firms were paying little or no tax in the early 1980's, while other

[3]Even if the firm did not have enough tax liability to use all credits itself, the "safe-harbor leasing" feature of the 1981 law allowed it to lease equipment from another firm that could use the credit, at a rental price that passed through the benefit of the credit.

firms such as retailers were paying high effective tax rates.[4]

Many economists pointed out that these differences would lead to misallocations of resources and a lower value of output than if the same amount of tax were collected in a more uniform manner. Others simply thought it unfair that some firms with positive income were paying no tax. These investment incentives were the building blocks of tax shelters, and they were sometimes used by high-income firms and individuals to avoid paying any tax at all. Calls were heard for a "level playing field" that would subject all firms and all types of investment to more similar effective tax rates. The development and impact of such ideas will be examined below.

II. The Supply Side

It was 1974 when Arthur Laffer first drew his famous curve on a napkin in a Washington restaurant.[5] Its logic is amazingly simple. Government revenue must be zero at a tax rate of zero, and revenue must also be zero at a tax rate of 100 percent since nobody would bother to work or earn other forms of income subject to tax. If any revenue is raised between tax rates of zero and 100 percent, there must be an

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[4]If the corporate investment is financed by stocks and bonds sold to a tax-exempt institution, the total effective rate in Table 4 is -37 percent. Presuming the corporation can use all excess credits and deductions on the marginal investment against its tax liability on intramarginal investments, the positive corporate tax is more than offset by the ITC, accelerated depreciation allowances, and interest deductions at the statutory corporate rate, with no subsequent tax on the exempt recipient of the interest and dividends.

[5]"Dining with Wanniski and Richard Cheney, Rumsfeld's deputy, Laffer tried to explain how higher tax rates can produce less revenue ... When Cheney seemed mystified, Laffer impulsively grabbed a napkin and drew a curve, demonstrating the variable relationship between tax rates and revenues. Thus was born what Wanniski popularized in his writings as the Laffer Curve." (Evans and Novak, 1981, p.63)

intermediate rate at which revenue is maximized. The counterintuitive implication is that there must also be a range over which a higher tax rate reduces revenue. Even more surprising, perhaps, is that this result was not already well known and well understood.

The principle economic reason given for this result was that taxpayers react by changing their "supply" of taxable labor or capital, a terminology that was useful to distinguish this microeconomic orientation from the previous macroeconomic orientation of tax cuts designed to stimulate aggregate "demand." To academic economists, however, the presentation of the idea had a number of problems. First, of course, the idea was not exactly new:

> High taxes, sometimes by diminishing the consumption of the taxed commodities, and sometimes by encouraging smuggling, frequently afford a smaller revenue to government that what might be drawn from more moderate taxes. (Adam Smith, 1776, Book V, Chapter II)

Second, economists were quite familiar with the idea that economic outcomes were determined by the interaction of both supply and demand. Third, Laffer and other early champions did not just point out the existence of the downward sloping range of the curve but claimed that "we are well within this range at present" (Laffer, 1977, p.79). Fourth, they emphasized the effect of lower tax rates on actual labor and capital supply, at least initially,[6] rather than on financial arrangements and other tax avoidance behavior that can be used to reduce one's tax base.[7]

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[6]Rep. Jack Kemp, for example, said "the case that I'm making is that this tax system is biased against innovation, against investment, against savings, against work. There's such a tax on labor and capital that it's causing in part the deficit" (N.Y. Times, November 30, 1980).

[7]In addition, some of the initial jargon was simply wrong, suggesting

An unfortunate result was that these surface issues were easily attacked. It was quickly shown that the curve did indeed exist within pre-existing economic models with both demand and supply behavior, but that "reasonable estimates of an aggregate labor supply elasticity and of an overall marginal tax rate are both low enough to suggest that broad-based cuts in labor tax rates would not increase revenues" (Fullerton, 1982, p.20). Use of this pre-existing model found that the revenue maximizing tax rate was in the 70-80 percent range. Such responses address the extreme claims, perhaps, but not the more subtle and important points of the supply side movement. What we learned ultimately from this movement is that tax rate reductions may have large effects on the tax base through means other than actual labor or capital supply.[8]

Indeed, the quote from Adam Smith should be suggestive. Two hundred years ago, when most government revenue was obtained from tariffs, a particularly high rate would not necessarily discourage imports, it would just shift them to an untaxed form. Similarly, high rates of tax may do little to actual labor supply, but may shift it to

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that the peak of the curve is "the point at which the electorate desires to be taxed" and where "revenues plus production are maximized" (Wanniski, 1978, p. 98).

[8]Another lesson from more recent literature is that the effect of a tax rate change depends greatly on what is done with the revenue. If extra revenue is used to provide cash or the equivalent back to taxpayers, then work effort necessarily falls. The taxpayer does not really lose any income, so the change in relative price makes him substitute from work into leisure. True supply-siders believe most government programs do provide cash or private goods. Instead, however, the revenue may be spent on something that bears no relation to choices about private goods and leisure (where economists say that the public good is "separable" in utility). The relative price of leisure falls, so the substitution effect makes him work less, but he has less income to spend on private goods and leisure, so the income effect makes him work more. On net, labor may either rise or fall.

an untaxed form such as "receiving income as fringe benefits, devoting expenditures to tax deductible items, and participating in the underground economy" (Browning, 1989, p.52). Use of a model with these behaviors found that the revenue maximizing tax rate was in the 50-60 percent range.

Years later, the President's Council of Economic Advisors recognized that the emphasis on labor supply was a narrow perspective. In 1985 it supported the call for tax reform by pointing out that lower marginal tax rates would also reduce the incentive: to hold tax-free municipal bonds; to take advantage of the deductibility of state and local taxes by shifting more activity into that government sector; to take business deductions for travel, meals, and entertainment; to use fringe benefits as a form of compensation; to take deductible charitable contributions; to use interest-deductible debt rather than equity to finance an investment; to earn tax-free "imputed " net rents from owner-occupied housing; to search out legal tax shelters; and to engage in illegal tax evasion.

After some rate reduction was completed, Lindsey (1990) found that tax cuts for lower brackets had positive feedback effects on revenue, but did not pay for themselves. However, he found that high bracket taxpayers (those earning more than $200,000) brought so much more activity into the tax base that they ended up paying more tax rather than less. In other words, the use of his model found that the revenue maximizing tax rate was in the 40-50 percent range.

For these reasons, and with the value of hindsight, it might be said that the "supply side" movement was entirely mis-labeled. This terminology emphasizes actual labor supply, which for most people is not

very adjustable, and it thus gave traditional thinkers an easy target. Supply-siders were branded as extremists even before they got a chance to list these other more adjustable behaviors as additional reasons that a tax cut could raise revenue. Moreover, the "supply side" label did not convey their more central message, namely, that economic growth would be aided by shrinking the size of government.

It did not help that the supply-siders themselves were ambiguous. In intellectual circles they tried to explain the myriad ways in which rate reduction can have positive feedback effects on revenue, but in the popular press these complex arguments always seemed to get reduced to the claim that people work more, and revenues rise. Others besides Laffer and Wanniski helped feed this misunderstanding, partly in order to bring attention to their cause. A "wake-up call" was needed to put the issue before the people and convince policymakers that taxes had any such incentive effects at all. Jack Kemp was quoted to say "Frankly, it is my belief that at lower, more efficient rates of taxation, we'll get more revenue" (N.Y.Times, November 30, 1980), and candidate Reagan said "even the government winds up getting more money at the lower rates."[9] As Murray Weidenbaum (1988, p.19) wrote, "Supply-side economics has made a useful positive contribution in moving the issue of incentives ... to the front pages of our newspapers." The problem with this ambiguity was that then they had to deal with the consequences:

> Journalists and academics continued to declare that there was not a scrap of evidence for supply-side economics. When pressed on this matter of evidence, it always turned out that they meant there was no evidence that tax-rate reductions would pay for

[9]This quote was used on a 1981 broadcast of All Things Considered, on National Public Radio, entitled "Tax Less, Work More" (#81311).

> themselves in each bracket. Since Reaganomics was not based on the Laffer Curve, they either did not know what they were criticizing or pretended not to know in order to hold on to their strawman. (Paul Craig Roberts, 1984, p.133)

As noted above, the cut in the top rate might have paid for itself, but not across-the-board cuts in all marginal rate brackets.

These problems with the initial presentation of supply-side ideas may have been the source of weak academic support, but problems with inflation were definitely the source of strong public support. Increases in the Consumer Price Index (CPI) were substantial:[10]

Year	% Change CPI
1976	5.8
1977	6.5
1978	7.6
1979	11.3
1980	13.5

In fact, inflation was a factor in two supply-side precursors of 1978. In California, inflation had been increasing nominal assessed values, such that property taxes would rise even with no change in the tax rate, until a popular uprising passed Proposition 13 to limit these automatic tax increases. In addition, inflation had been increasing nominal selling prices and therefore taxes on capital gains. President Carter did not recognize the shifting political winds, perhaps, until a popular uprising passed the Steiger Amendment to convert his proposed capital gains rate <u>increase</u> into a capital gains rate <u>decrease</u>.[11]

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[10] <u>The Economic Report of the President</u>, 1990, p.363.

[11] At the time, the top bracket was 70 percent and the capital gains exclusion was 50 percent, but the "alternative tax on capital gains" allowed a 25 percent rate on the first $50,000 of net capital gains. In January, the <u>President's 1978 Tax Program</u> proposed to repeal the alternative tax and thus raise the top capital gains rate to 35 percent.

Inflation was having at least two other important effects on taxes. First, it was pushing taxpayers into higher brackets, increasing personal marginal tax rates through "bracket creep." One response was the Kemp-Roth plan of 1977, H.R. 8333, also known as "10-10-10" to summarize its three successive years of 10 percent cuts in all marginal tax rates. However, rate reduction would not offset the effect of inflation on low-income households that had become taxable. Second, inflation was reducing the real value of depreciation allowances, increasing the cost of capital, and decreasing investment incentives. The response to this problem was the Conable-Jones plan, H.R. 4646, also know as "10-5-3" to summarize its three depreciation lifetime categories for all assets: ten years for structures, five years for equipment, and three years for light vehicles.

These proposals each represented massive tax reductions, at least relative to the then current unindexed tax system that was projected to turn a 2.4 percent of GNP deficit into a 2.4 percent of GNP surplus (in Table 3, the row for 1979). Each was motivated in part by supply-side considerations. For different reasons, however, each was actually a very traditional piece of legislation.

As described above, the entire postwar period had seen frequent income tax "reduction" legislation.[12] The Kemp-Roth plan was a bit larger, perhaps, and it provided rate reduction in contrast to the more common practice of adding new credits and deductions. But inflation was greater than normal and bracket-creep had sent marginal rates to all

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The enacted legislation instead raised the exclusion, to 60 percent.

[12]In contrast, the postwar period also saw frequent social security tax increase legislation.

time highs. Thus, despite supply-side rhetoric, even 10-10-10 could be viewed as another ad hoc offset to inflation. In particular, it was traditional legislation in that it did not propose indexing to end the continuing cycle of bracket-creep and tax "reduction."

Similarly, as described above, depreciation had been accelerated in 1954, 1962, and 1971. In 1980 inflation was higher than usual, so the proposed acceleration in allowances was higher than usual. Again, the Conable-Jones 10-5-3 plan was traditional legislation in that it did not propose to index depreciation allowances in a way that would guarantee a certain real value of depreciation whatever the rate of inflation. According to David Stockman (1987, p. 62), it did not even arrive with any supply-side rhetoric:

> Conable and his Ways and Means Committee Republicans had consolidated their own coalition. It was an awesome assembly of business lobbies and trade associations representing everything from autos to real estate, steel, and zinc smelters... The old guard was much more comfortable with this approach than with the supply-side marginal rate reduction plan.

For related reasons, this business tax cut did not jibe with the populist message of the personal tax cuts:

> Kemp and the supply-side purists did not like it, viewing it as just another tax shelter for established big corporations that would be little or no help to up-and-coming entrepreneurs, the future hope of the capitalist system who above all wanted a quick drop in taxation of "unearned" income. (Evans & Novak, 1981, p.99)

In addition, these proposals were not designed according to any particular careful theory, supply-side or otherwise. There was no special reason for three successive 10 percent rate cuts except that it

spread out the cost, and no special reason for that particular total percentage cut except that it was big. The special appeal was the simplicity of the numbers, 10-10-10. It was something that the man on the street could understand. Even for an area as arcane as business depreciation provisions, the simplicity of 10-5-3 had appeal.[13]

Thus the proposals had several things going for them. Inflation was at an all time high, the budget was projected to go into surplus, the simplicity was appealing, there was a popular anti-tax uprising, and a new supply-side theory provided some intellectual (if ambiguous) underpinnings. For many traditional legislators, however, the extreme version of the supply side view may have worked against the proposal. Few in Congress gave any credence at all to the idea that the rate cut would pay for itself.

The proposals had much more going for them in 1980, however, when candidate Reagan came on board. Ronald Reagan was a natural opponent of high taxes and big government, and his campaign pushed the populist message of the supply side. He garnered populist support with 10-10-10 and courted business support with 10-5-3. Despite their differences, both of these proposals were tax cuts, both would help offset inflation, and both were proposed by Republicans. Why choose between them? Reagan was more interested in the personal rate cut, but both of these odd bedfellows were adopted by the Republican platform. The landslide election of 1980 certainly appeared to be a strong mandate for tax reduction.

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[13]As David Brockway points out, "10-10-10 is not something you generate out of a computer." Also, "they were running out of corporate tax base, so eventually the bubble would burst.... If anything is devoid of intellectual content, it's 10-5-3."

After the election, Ronald Reagan collected into his administration several different kinds of appointments. The White House was dominated by moderate Republicans such as James Baker and Richard Darman, while the Treasury Department included some extreme supply-siders like Norman Ture and Paul Craig Roberts. The budget director, David Stockman, was a bit of a half-breed. He professed to be an ardent supply-sider, but he never believed the tax cuts would pay for themselves. Rather, he believed in the importance of smaller government for greater productivity and economic growth. He quickly calculated that the cost of the two tax cuts together was "staggering" (1987, p.64), but he had a two part plan. First, since the proposal still did not include indexing, a few years of inflation would help undo some of the cost. Second, "the prospect of needing well over $100 billion in domestic spending cuts to keep the Republican budget in equilibrium appeared more as an opportunity than as a roadblock" (1987, p.74).

As we shall see, indexing was added to the proposal before it was passed, and actual spending cuts were small compared to the remaining deficit. The more immediate problem, however, was the Administration's February 1981 economic forecast: "When you added the supply siders' assumption of 5.2 percent real growth [for 1982] to Weidenbaum's 7.7 percent inflation, you got a mountain of money GNP — and phantom tax revenues" (Stockman, pp.106-7). Thus it was "Rosey Scenario" who convinced policymakers they could afford the big tax cut.

Though the Senate had gone Republican in 1980, the tax cuts were still far from a sure thing. Many legislators viewed the size of the personal tax cut as irresponsible. In the first place, Democrats were naturally opposed to the tax and spending cuts, and in the second place,

traditional Republicans agreed with George Bush's campaign quote that supply-side was "voodoo economics." Both of these groups were more inclined toward the business tax cuts, and Democrat Lloyd Bentsen even had his own similar accelerated depreciation scheme in the Senate Finance Committee. The personal rate cuts were of no interest to business leaders and lobbyists, but of great interest to the new President still in his honeymoon period. The two proposals were married in the White House, as corporate executives agreed to support Kemp-Roth in exchange for White House support of the Accelerated Cost Recovery System (ACRS), a modified version of Conable-Jones that reduced structure lifetimes from 30-40 years to 15 years, equipment lifetimes to 5 years, and light vehicles to 3 years.

Democrats still were balking, and the White House eventually agreed to cut the first year of the personal rate reduction from 10 to 5 percent, delay it for a year, and add a couple of "ornaments" designed to attract support from particular sources.[14] Many observers said afterward, however, that such compromises were not necessary. The Democrats were reeling not only from electoral defeats, but from successive legislative defeats on Stockman's spending cuts. Southern "Boll-Weevil" Democrats had formed a viable coalition with Republicans, and other Democrats were shrinking in fear of the next election. One insider said that "the Republicans could have crammed in twice the cuts and still got the vote, but they only bit off as much as they thought they could chew." When the President was shot on March 30, anything he

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[14]Up to this point, the Administration was trying to keep "clean" a bill that would balance the budget by 1983 (using the "Rosey Scenario"). Although these changes started them down the road toward a "dirty" bill, the cost of the ornaments were offset by the lower first year rate cut.

wanted could have sailed right through. The Democratic leadership promised a tax bill by July.

Meanwhile the professional tax staffs in both the Treasury Department and the Joint Tax Committee were proceeding to analyze the proposals, and it was soon clear that the combination of the investment tax credit and accelerated depreciation allowances would be even more generous than simply allowing businesses to "expense" immediately the full cost of the investment. As revealed through interviews, these insiders knew that the outcome would be a host of administrative problems related to tax shelters, the leasing of equipment, the churning of real estate, and corporations without enough tax liability even to make use of the allowable credits and deductions. Besides, it just seemed "wrong." Among other issues, it raised the specter of providing more investment incentive to an older taxable firm than to a struggling new high-tech firm that was not yet taxable.

The Treasury had two responses. First, they designed "safe-harbor leasing" so that a taxable firm could buy the equipment, lease it to an untaxed firm that had really wanted to make the investment in the first place, and then charge a rent that passes the tax benefits through to the untaxed firm. The result, we would see later, was that many large profitable corporations could zero-out their tax liability, which caused significant perception problems even if these firms were passing through the tax advantages by receiving reduced rents for the equipment. Second, in June, Treasury proposed a reduction in the generosity of ACRS.[15] The result in this case was "Lear-Jet Weekend." Corporate

[15]Double-declining-balance was reduced to 150 percent declining balance, while utilities and industrial structures were given longer lives.

executives flew to Washington from all over the country to point out that their support of the personal rate cuts was dependent upon full White House support of their business tax cuts. By Monday the full depreciation plan was restored.[16]

Along the way, the Administration's tax plan had been named after Barber Conable (R., NY) and Kent Hance (D.,Texas). It had been amended by a second-earner's deduction, an estate and gift tax reduction, a higher ceiling on Individual Retirement Accounts (IRAs), and a credit for oil royalty owners. But the Democrats were not just sitting on their hands. All tax legislation is required by the Constitution to begin in the House of Representatives, and the House was still controlled by the Democrats. The new Chairman of the House Ways and Means Committee, Dan Rostenkowski, wanted to put his own stamp on the bill. Democrats were nervous about the third year of 10 percent personal rate cuts, so they came up with an alternative of their own. They saw enough of the supply-side argument that they viewed as sensible the cut in the top rate from 70 to 50 percent, so they made it immediate rather than phased over three years. To try to rationalize the depreciation scheme, they offered straight expensing of equipment. To attract particular other constituencies, they added significant cuts in the estate and gift tax, a larger oil royalty credit, an IRA for those who already have pension plans, a cut in the corporate tax rate from 46 to 34 percent, and other sweeteners. The Republicans countered by

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[16]Although double-declining-balance was restored, it was delayed until after 1985. Lives would be shortened immediately, but depreciation would be 150 percent of declining balance in 1981 through 1984, 175 percent in 1985, and 200 percent thereafter. Each depreciation schedule is laid out in a table, and each involves switching to straight line or sum-of-the-years-digits at the optimal point in the life of the asset.

adding several of these ornaments, plus additional provisions for indexing and for all-savers' certificates. The result was the "Bidding War" of Summer 1981 (see Rudder, 1983, and Witte, 1985). Sweeteners were added both to the Administration's bill and to the Democratic alternative in attempts to bid support away from the other. The bills were fundamentally very similar, so the struggle really amounted to whose name would be on the bill to win. At this point, all semblance of responsible policymaking went out the window. Several observers thought that the result was nothing other than a "feeding frenzy."[17]

The resulting bill, passed in August, had not just three years of personal rate cuts and the Accelerated Cost Recovery System (ACRS). It had safe-harbor leasing, expanded IRA's and Keogh Accounts, all-savers' certificates, estate and gift tax cuts, a second-earner deduction, an incentive stock option, a larger Employee Stock Option Plan (ESOP), an oil royalty owner's credit, a research and development (R&D) incremental tax credit, a child care credit, deductions for charitable contributions of nonitemizers, an increase in the homeowners' capital gains exclusion, a deduction for adoption expenses, a new exclusion of foreign earned income, and many other special provisions.

To be sure, many of these proposals had been kicking around for some time and had good tax policy arguments supporting them. Many did not. The point here is not to debate the arguments for and against each provision, but to note the process by which they were all combined in one bill. No attention was paid to the long-run revenue consequences of

[17]The logic "was that of the alcoholic: One more couldn't hurt, given all that had gone down already" (Stockman, 1987, p.248). Also see McLure (forthcoming).

the two main provisions, let alone all of these additional provisions. Especially given the nature of the bidding war, all observers thought that the bill was pure politics. There was virtually no economic input to the process. Stockman (1987, p.278) notes that "supply side theory was, well, as relevant as love at an orgy."

Of the professional economists I interviewed who were involved in this process, almost all said that economic analysis may have had an impact only on some small aspects of the legislation. They pointed out that certain assets were moved from one depreciation category to another based on economic estimates of useful service lives. Also, safe-harbor leasing was suggested as a way to provide the same economic incentives to both taxable and untaxed firms. And the second-earner deduction had been suggested by economist Joe Pechman years before as a way to lessen the perverse incentive effects of the marriage penalty. Here was a modest proposal that was targeted directly at the logic of the supply side. Given the higher earnings of the family's primary worker, the secondary worker faced a high initial marginal tax rate and a more adjustable labor supply decision. Since the second-earner deduction cuts the tax of just the more responsive secondary worker, it is more likely to have a large positive feedback effect on revenue.

These economists all agreed with the noneconomists that the big decisions were pure politics, however. First of all, if the peak of the Laffer Curve were really as low as 40 percent, then a pure supply-side rate cut would apply only to the top brackets. No supply-side response would be expected from a low-income taxpayer's reduction in rate from 14 percent to 11 percent. In addition, the depreciation scheme was pushed by the business lobby, while economists were pushing alternatives such

as expensing or the "first-year-recovery" proposal of Auerbach and Jorgenson (1980).[18] Moreover, the ideas that had been put forward by economists were ignored. Economists had pushed the value-added tax, a proposal that spelled electoral defeat for Al Ullman, the former Chairman of the House Ways and Means Committee. Economists had pushed the idea of a consumed-income tax, a proposal that was ignored by all politicians except Gary Hart.[19] Economists had pushed the integration of corporate and personal income taxes, another idea that was totally ignored in the political process.[20]

Despite these arguments, I think it is possible to take the exact opposite position, namely, that economic considerations determined the big issues while politics decided relatively small issues such as the provisions added during the bidding war. These staff economists are correct that they had more impact on the details of this legislation than on its fundamental form. In several important respects, however, other economists from the academic and private sectors had a prior impact on the nature of the legislation. It is more difficult to see the indirect role of economists whose writings get sifted through

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[18]Instead of indexing later depreciation allowances, this proposal would avoid the effects of inflation by providing a deduction in the first year of the life of each asset that would be equivalent in present value to real economic depreciation.

[19]Under a consumed-income tax, each taxpayer would file an annual return that measures consumption by including all forms of income and then deducting all forms of savings. As discussed below, a deduction for net saving means the inclusion of net borrowing.

[20]Businessmen like to talk about double taxation, but not integration. Yet Ullman wanted to pay for integration by imposing a VAT. As David Brockway remembers it, "That is what the NBER thinks you ought to do. I don't know what these guys smoke. Politically, this is ludicrous: impose a sales tax in order to cut tax for business. It just reflects the haywire political compass of the Democrats. At least the supply side had a focus."

colleagues and the media before entering the political marketplace of ideas, but these impacts were crucial nonetheless.

First, whatever the validity of particular claims made at the time, the supply side is inherently an economic concept. The main point of the supply side is that incentives matter, and that point was ignored or forgotten as previous politics had raised marginal tax rates to over 90 percent. It was economic ideas that first suggested these rates be brought back down again. The Kemp-Roth bill might not have been available for consideration but for supply side economics.

Second, economic analysis deals not only with incentives but also with the distribution of tax burdens. While incentive considerations suggested reducing the top marginal tax rate, distributional considerations suggested reducing rates for low-income taxpayers as well. Here, economists and politicians were in agreement that the tax cut should not be only for high-income households. In fact, bracket-creep had been raising the taxes of low and middle income taxpayers more than it had been raising the taxes of those already in the top bracket.

Third, many economists had been pointing out the perverse effects of inflation not only through bracket-creep, but also in reducing the real value of depreciation allowances, raising capital gains taxes, and exaggerating the real effects of interest paid and received. Although most economists might have preferred to index depreciation allowances for inflation, Feldstein (1981, p.38) supported 10-5-3 by noting that "for moderate rate of inflation and real discount rates, the acceleration proposal and full indexation are quite similar." Much economic analysis was devoted to the problem of insufficient savings and investment, and this analysis provided much impetus to the final bill's

expanded IRA, reduced capital gains rate, and R&D credit. Politics merely determined the right time to insert these provisions, some aspects of their form, and a few other provisions like ESOPs.

Finally, it is an economic argument that underlies the indexation of tax brackets for inflation, the provision that perhaps unexpectedly turns out to have the biggest effect of all.

III. The Deficit

Concern about the revenue impact of ERTA began "immediately if not sooner." Some legislators knew even as they voted for the bill that it would soon have to be fixed.[21] For example, on September 14, 1981, the N.Y. Times reported that:

> Mr. Moynihan, a Democrat and New York's senior Senator, voted for the Administration's tax legislation this summer – both in committee and on the Senate floor – but maintained in an interview that he really supported only certain parts of that bill. He gave it his vote, he explained, "because it was that or nothing."
>
> Asked to specify how he would revise the tax bill, Mr. Moynihan said he was not ready to provide details, other than to say he would cut the $750 billion, five-year cost of the Administration's bill by approximately $250 billion, or one-third.

Even the Administration, as part of the "September Offensive" directed primarily at spending cuts, proposed $22 billion of what was for the first time euphemistically called "revenue enhancement." But the primary problem developing during this period was the deepening recession. The "Rosey Scenario" of February 1981 may or may not have been overly optimistic from the beginning, but now the economic

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[21]The Economic Recovery Tax Act of 1981 passed by a vote of 238 to 195 in the House and 89 to 11 in the Senate.

forecasts repeatedly had to be revised downward. According to David Stockman's mea culpa (1987, p.369):

> The failed September Offensive had been aimed at reducing the 1984 deficit by $75 billion. Now the deficit estimate had increased by an order of magnitude — to $150 billion. We were suddenly faced with the stark reality of what had been hidden from the beginning. Our sweeping fiscal plan had led straight into the jaws of triple-digit deficits.

Because the budget plan only covered years through 1985, the apparent problem still was simply the size of the ERTA tax cut. Much discussion ensued about whether to delay the second year's 10 percent rate cut, or to abort the third year's additional 10 percent cut. Policymakers still had not recognized the long run implications of bracket indexing scheduled to start after 1985. Without indexing, they could have avoided any legislation to raise taxes. By just waiting a bit longer, inflation would have raised taxes for them. The budget problem, though severe, would only have been temporary.

Since supply side theory recommended that marginal tax rates be reduced, it might also be thought to recommend that rates stay reduced. Yet indexing was not put into the 1981 legislation by any supply-sider such as Arthur Laffer, Jude Wanniski, Jack Kemp, or even Ronald Reagan. It was inserted late in the summer of 1981 by Republicans Bill Gradison in the House and Bill Armstrong in the Senate. The Administration did not even want indexing. As Congressman Gradison remembers it, the Administration tried to renege on a deal that indexing would be added to Conable-Hance, the Administration's bill in the House, if Armstrong

managed to get it into the other version of the bill in the Senate.[22]

Then at the height of the bidding war, despite his Administration's earlier opposition, President Reagan used indexing to great advantage in selling his "bipartisan" package (since Conable-Hance was named after members of both parties) over the "Ways and Means" (Democratic) plan. On July 27 he went on national television with an oversize chart (reproduced here as **figure 1**) showing that although the "Ways and Means" plan gave larger cuts initially, taxes would subsequently rise. With indexing, the "bipartisan" tax cut would remain a tax cut.

This figure demonstrates vividly the single most unusual feature of the 1981 legislation. Prior tax cuts were temporary. The 1981 tax cut was not only the biggest in U.S. history, it was permanent.[23] It was not the size of the deficit as much as this permanence that so greatly affected all subsequent tax policymaking.

During the course of the next year, additional policymakers came to realize that revenue must be raised. Within the Administration, some began seriously to discuss a $100 billion tax increase, and others began

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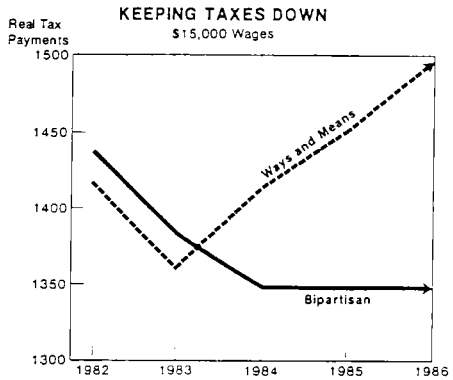
[22]As Stockman tells it, "'Armstrong doesn't have the votes on the Senate floor,' the Senate's best vote-counter told Jim Baker. 'We'll bury indexing in an hour'" (p.275). Then, after indexing was voted into the Senate bill by 57 to 40, "Conable insisted that tax indexing be incorporated in Conable-Hance II. Both Don Regan and I fought that one, but Conable and his GOP colleagues persisted. We solved the impasse by delaying the effective date of tax indexing until 1985" (p.281). While true supply siders would favor both the rate cut and indexing, fiscal conservatives in the Administration may have feared the sheer size of the rate cut and viewed bracket creep as a way to reduce it. The budget was defined as a three-year problem (1982-84), however, so any cost after 1985 was irrelevant.

[23]Policymakers at the time used nominal terms to describe the 1981 act as the biggest tax cut in U.S. history and the 1982 act as the biggest tax increase in U.S. history.

Figure 1



Source: Paul Craig Roberts (1984).

to resign.[24] The form of the tax increase, however, was still subject to debate. Democrats favored repeal of the third year's rate cut, as Rostenkowski said "I see it as repealing something that taxpayers have never enjoyed – as opposed to taking money right out of their pockets with heavy consumer taxes" (Washington Post, May 10, 1982). The Republicans leaned toward excise taxes, user fees, greater enforcement, and generally anything that appeared less as a tax. Asked whether the new tax bill represented a turn-around from the philosophy of last year's supply-side tax cut, Senate Finance Chairman Bob Dole said "We're not trying to make a U-turn; we're just trying to avoid going over the cliff" (Washington Post, August 16, 1982).

One unusual feature of this bill is that instead of beginning in the House of Representatives as is required by the Constitution, it essentially began in the Senate Finance Committee. Chairman Dole circumvented the Constitutional restriction by latching onto a minor tariff bill that had passed the House. His Committee could then produce a virtually new bill and go straight to a conference with House members to work out the "differences." An immediate question is why Rostenkowski did not cry bloody murder at this Constitutional outrage. After all, one might think that the Democrats would want to help undo the Republican tax cut of 1981. The answer is that Rostenkowski was in on the plan. He wanted a bill in 1982, but many on his Ways and Means Committee did not. In many ways, the House was more supply-side oriented than the Senate. Since its members faced election more often,

[24]Paul Craig Roberts resigned as Assistant Secretary of the Treasury in January of 1982, and Norman Ture resigned as Under Secretary in June. See also Regan (1988, p.184).

the House was more susceptible to swings in the public mood such as the ongoing anti-tax revolt. Rostenkowski could simply pick conferees that agreed with him, negotiate with the Senate, and avoid ever taking on his full Committee (also see McLure, forthcoming).

In its final form, the "Tax Equity and Fiscal Responsibility Act of 1982" (TEFRA) raised $98.3 billion over three years. Given the flap over news accounts of major corporations that were paying no tax, it repealed the safe-harbor leasing provision of the 1981 Act. Mostly, it took little nicks at many features of the law. It added to the individual alternative minimum tax (AMT), increased the floor for deductible medical expenses and casualty losses, taxed more of unemployment benefits, reduced deductions for some mineral companies, required capitalization and amortization of construction period interest and property taxes, amended the completed contract method of accounting, accelerated corporate estimated tax payments, limited the use of tax-exempt industrial development bonds, restricted allowable pension contributions and benefits, and amended provisions for foreign income, life insurance companies, and unemployment taxes. It added excise taxes on airport use, communication, and cigarettes.[25]

Its two largest provisions, however, were modifications to depreciation and compliance. Calculations such as those in Table 4 began to show that the combination of ACRS and ITC was considerably more generous than expensing, especially since the rate of inflation had fallen. Inefficiencies and inequities would result from high effective tax rates for some assets and negative effective tax rates for others.

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[25]Commerce Clearing House (1981, 1982, and 1984) publications provide detail and explanation of the three tax bills enacted in those years.

Thus began the development of the "level playing field." In this case tax increases had some political appeal by targetting those receiving extra benefits. Note that the calculations in Table 4 reflect the fully phased-in version of the law, with double-declining-balance, scheduled to begin after 1985. The 1982 Act simply made permanent the 150 percent method that ERTA had specified for 1981 to 1984. It also decreased the basis for depreciation deductions by half of the investment tax credit. According to economists doing the calculations, these changes were designed to leave benefits approximately on par with expensing.

The compliance provisions included various income reporting responsibilities and increased penalties, but also the first withholding on interest and dividends, at a 10 percent rate. Wages and salaries had been subject to withholding for years, so it might be natural to think that interest and dividends could be subject to similar rules. Wages and salaries were no longer a major compliance problem, while interest and dividends were often not reported. Any significant administrative problems had been considerably reduced by the coming of computers to the banking and brokerage industries. But this provision raised a terrific outcry from banks and depositors, largely through Senator Bob Kasten's write-in campaign. It was repealed the next year.

Perhaps most striking about TEFRA and other subsequent efforts to raise revenue is not the provisions they included, but one possibility they excluded. They did not repeal bracket indexing. Another look back at Table 3 reveals that whereas the 1979 five-year projection showed a surplus as large as 2.4 percent of GNP, the 1982 projection showed a deficit as large as 5.4 percent of GNP. The result is that tax increase legislation took the hard road, with bills every year from 1982 to 1985.

At the time of passage, revenue effects of each bill were projected a few years ahead. More recently, however, the OMB has estimated the past effects of each bill through 1990, relative to the law in effect before ERTA. As shown in Table 5, prior law would have increased revenues dramatically throughout the 1980's, but the 1981 bill reduced revenues by at least $200 billion per year after 1987. Then the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) raised revenue, by $50 billion per year after 1987.

Later sections of this paper discuss how ambiguities in prospective revenue estimates cause problems for debate about proposed tax changes, but these ambiguities apply even to retrospective estimates for past tax changes. Since nobody really knows how the economy would have evolved under prior tax law, the OMB estimates in Table 5 simply apply the old law to actual economic magnitudes to get prior law baseline revenues for comparison with actual revenues. In contrast, Lindsey (1990) provides one attempt to estimate how various economic magnitudes would have been different under prior law. Without some of the incentive-induced increases in the tax base, revenues under old law would not have been as high as in these OMB estimates. Thus, "ERTA cost less than one-third as much as implied by the naively calculated direct effect estimate" (Lindsey, 1990, p. 74).

Meanwhile, demographic trends were playing havoc with the pay-as-you-go social security system. Payroll tax receipts would be sufficient to cover retirement benefit payouts while the baby-boom generation was still working, but might not be sufficient after that population bulge was retired. In 1983, a "bipartisan" commission reached agreement to restore the long run health of the beleaguered system, imposing moderate

Table 5
Changes in Budget Receipts, FY 1982-1990

Year	1982	1983	1984	1985	1986	1987	1988	1989	1990
Receipts under laws in effect 1/1/81	650.8	656.0	749.4	821.3	822.5	873.9	1002.6	1088.2	1167.3
Changes due to:									
ERTA, 1981	-35.6	-82.6	-136.8	-168.5	-170.3	-207.5	-264.4	-290.9	-322.8
TEFRA, 1982		17.3	36.0	40.7	39.2	49.2	57.3	55.7	57.2
Social Security, 1983		5.3	15.5	31.2	30.5	39.7	70.3	85.2	105.1
DEFRA, 1984			0.9	9.3	9.3	16.0	25.4	27.7	31.0
TRA, 1986							-8.9	-24.4	-20.3
Technical Corrections, 1987							11.4	16.9	18.7
Total receipts	617.8	597.5	666.4	736.8	734.0	776.4	908.7	975.8	1057.6

These figures are taken from selected rows of a table in Stewart (1990). Rows for administrative action and other small legislative changes are omitted here, but they are reflected in the last row for total receipts. Footnotes to Stewart's table:

Explanation: The first row of figures is an estimate of the amount of revenue that would have been generated in each fiscal year if no changes to tax law had been made in the 1980s. Other rows gives estimates of the revenue gains or losses for that fiscal year attributable to the relevant change in tax law. For instance, if there had been no changes to federal tax law during the decade, then the federal government is estimated to have received $1167.3 billion in revenues during FY 1990. The net effect of the 1981 ERTA is estimated to be a loss of revenues during FY 1990 to the order of $322.8 billion. The net effects of changes to the 1981 ERTA itself are reflected in the estimates for the relevant subsequent tax laws; for example, the effects of rolling back the accelerated depreciation provisions of the ERTA that occurred in 1982 are reflected in figures for TEFRA.

Source: Budget of the United States, FY 1982-1990. These are estimates provided in the annual budget documents, therefore they are subject to frequent revision. Therefore, these figures should be taken to represent ballpark figures, rather than hard-and-fast estimates.

increases in current payroll taxes that would build a temporary "surplus" in the trust fund. The effect starts small, as shown in table 5, but grows to $100 billion per year by 1990.

The next large tax increase was the Deficit Reduction Act of 1984 (DEFRA, to rhyme with TEFRA). It was only raising $25 billion per year by 1988, but it required many more pages than any of the previous bills. Just a list of the table of contents gives some idea of its breadth: tax changes affecting individuals, tax provisions affecting business, foreign sales corporations and foreign tax provisions, private foundations and exempt organizations, leasing, retirement plans and other employee benefits, tax shelters and related transactions, straddles, life insurance provisions, estate and gift taxes, tax-exempt obligations, administration and compliance, and excise taxes. Each of these chapters has twenty or thirty subheadings.

Among other changes, DEFRA raised the depreciation lifetime for structures from 15 years to 18 years. Another bill the next year raised this life to 19 years.

Legislators during this period were forced by the deficit to raise taxes, and they were forced by political realities to raise taxes on somebody who was "hiding" some special deal buried in the tax law. The general approach was to scour the tax code for provisions that were obscure rather than blatant. Policymakers could not increases rates or hit a popular personal deduction, but they could hit a "loose" provision that had been allowing some rich person to avoid paying tax (see Minarik, 1987, p. 1359). Thus tax policy came to be made in a fashion that is the <u>exact opposite</u> from the previous era. Up until 1981, Congress could return excess tax revenue, and undo the projected

surplus, by granting new special exemptions or deductions. After the rate cuts and indexing of ERTA, Congress needed to undo the projected deficit by deleting such special provisions. Thus deficit reduction also leveled the playing field.

Tax reformers such as Stanley Surrey and Joe Pechman had for years decried the practice of opening new loopholes that erode the tax base and create unfair disparities in the taxation of otherwise similar individuals. The basic political and economic forces were not in their favor, however, until the 1981 bill provided the logical extreme of such practices. It was the reductio ad absurdum of opening loopholes. But the sleeper was the indexing provision, as it would force policymakers thereafter to close loopholes instead.

This deficit-driven policymaking has advantages and disadvantages. Many of those interviewed think that it puts far too much emphasis on revenue considerations rather than other policy considerations. Some "good" tax policy changes might actually lose revenue. If so, they can't get enacted. On the other hand, given all of the "good policy" reasons of Surrey and Pechman for closing various loopholes, deficit-driven policymaking might well create better policy. Indeed, the whole point of the indexing provision was to put fiscal discipline into the tax policymaking process. Congress should be run like a corporation for which raising funds must be recognized as costly and spending funds must be demonstrated as worthwhile.

At least two books and many articles have been written in attempts to explain how the Tax Reform Act of 1986 was able to reverse previous practice, take on the special interests, close loopholes, and provide

true reform.[26] It was indeed important legislation. But the direction of tax policymaking had really changed by 1981. As we shall see in the next section, the many diverse and arcane base-broadening provisions of the 1986 Act were very similar in nature to the earlier revenue raising provisions of 1982-1985.

IV. The Level Playing Field

Various political and economic forces were still coming at the tax code from different directions, to be sure, but they were beginning to push it together instead of pulling it apart. Perhaps four developments were most important. First, supply-side theory continued to affect tax policy. Calls were heard for a "flat tax" that would put all taxpayers together in the same low tax bracket with absolutely no deductions other than those needed to define income. Since total federal individual tax revenues were about 11 percent of personal income, one naive approach would simply define a broad tax base equal to personal income, tax it at 11 percent, and get at least the same revenue. The low rate would be a tremendous boost for incentives to work and to save. A problem, of course, is that some components of personal income would be difficult to tax. Also, this extreme version of a flat tax would greatly increase the burden on poor and low-income taxpayers while greatly reducing that on high-income taxpayers. A "modified flat tax" (on consumed-income) with a large personal exemption and a single tax bracket of 19 percent is fully described in the book by Hall and Rabushka (1983).

Second, the tax system had become inordinately complex. In

[26]See, for examples, Birnbaum and Murray (1987) and Conlan, Wrightson and Beam (1990).

addition to complaints from taxpayers in all kinds of situations, there were estimates from economists that

> the average compliance time comes to 21.7 hours, valued at $231, and $44 in additional expenses, for a total of $275 per household. Applying the reweighted averages to an estimated 97 million taxpaying units in 1982 yields aggregate estimates of 2.13 billion hours and a total resource cost of $26.7 billion. This cost is approximately 1.4 percent of aggregate adjusted gross income, and more than seven percent of total federal and state income tax revenue (Slemrod and Sorum, 1984, p.465).

This is only an average. Since most taxpayers took less than 21 hours to fill out the short form for a return with the standard deduction, other taxpayers must have had to take much more than 21 hours. Many had to fill out ten or twenty forms just for one return. In contrast, a modified flat tax such as that in Hall and Rabushka could be filed once a year on a post card.

Third, public confidence in the tax system was further undermined by reports about corporations and high-income individuals paying no tax. In October 1984, Robert McIntyre and his Citizens for Tax Justice calculated the average effective tax rate for 250 large profitable corporations in years 1981 through 1983. He found that 128 paid no federal income taxes in at least one of these three years, and that 17 of them paid no taxes in all three years. For example:

> The single biggest gainer from the 1981 legislation was Ronald Reagan's former employer, General Electric. GE earned $6.5 billion in pre-tax domestic profits over the three years, paid not one cent in federal income taxes, and claimed tax refunds of $283 million in taxes paid before Reagan took office (McIntyre, p. 2).

Many of these companies used safe-harbor leasing to avoid paying tax,

but the repeal of safe harbor leasing in 1982 did not come fast enough to avoid the attention to other problems with the corporate tax brought by the intense media coverage of this report.

For individuals, the U.S. Treasury Department (1985) examined the 1983 returns of taxpayers with "total positive income" over $250,000 per year and found that 64 percent reported "losses" from partnerships, subchapter S corporations, rental and royalty activities, farms, and businesses. Of this entire high-income group, 11.4 percent had tax liability that was less than 5 percent of income. Another 9.8 percent had effective tax rates between 5 and 10 percent, and 32.0 percent had tax rates between 10 and 20 percent. The public decided, correctly, that such a system was just not fair. Thus the "horizontal equity" version of level playing field meant that taxpayers in the same economic circumstances ought to have to pay the same tax.

Fourth, economists both in and out of academia were calculating marginal effective tax rates of the sort shown above in table 4, with huge disparities between different types of assets or financing. Perhaps the major source of these differences was the investment tax credit (ITC) that was available for equipment but not for other investments of the firm. To economists, these disparities did not present a problem of equity, for no one ought to be concerned with the "fair" treatment of a machine relative to a building. Equity is an issue only among individuals. In equilibrium, individuals must be earning the same net-of-tax rate of return on a machine as on a building, because otherwise they would invest more in the favorable asset until net returns <u>were</u> equalized. Instead the problem was one of economic efficiency. If net returns were equal and effective tax rates

were not, then the differences must show up in gross rates of return on these assets. Thus some assets must be more productive, to cover a high effective tax rate, while other assets could be less productive and still yield the same net rate of return to the investor. The tax system was "distorting" the allocation of resources, as it encouraged more investment in the asset that was less productive.

Even with a fixed total stock of capital, according to this argument, total output would increase by taking investment away from the asset with the low gross rate of return and putting it into the asset with the high gross rate of return. Moreover, just such a reallocation would be induced by leveling the relative tax treatment of different assets. It was sometimes difficult for economists to explain this efficiency version of the level playing field, however, so they did not always object to the perception of inequity created by disparate treatments of different assets or firms.[27]

This efficiency argument rejects implicit industrial policy, the notion that government knows better than private firms what assets are the most productive. But the investment tax credit was not conceived as industrial policy. In 1964, it was intended as a temporary macroeconomic tool used to stimulate aggregate demand. The ITC was repealed in 1969 and re-introduced in 1971. Perhaps it made sense to limit a temporary ITC to equipment, where stimulus could have immediate

[27]The confusion of these two concepts is interesting in itself. I would have expected economists to emphasize efficiency arguments for a level playing field, and others to voice the equity arguments. Certainly members of Congress were heard discussing the equitable treatment of different assets or firms. But these comments may have been directed at the lay public. In the interviews for this paper, a surprising number of noneconomist policymakers described very accurately in their own words the economic efficiency argument for a level playing field.

effect, and to exclude buildings, where lags might delay the effect of the stimulus until after the need was long gone. This logic was lost, however, when the ITC became permanent in 1975. It then became a microeconomic tool which influenced not just the amount but the type of investment.

This free-market approach of economists should not be oversold as a driving force for tax reform. At best, the gains in economic efficiency would be small for all taxpayers. More certainly, the cost of lost credits would be large for particular taxpayers. Also, the playing field could never be completely level as long as owner-occupied housing retained its untaxed treatment. Besides, Congress was not about to reject government's influence over the allocation of resources. Provisions of the tax code were intended to influence homeownership, charitable contributions, retirement savings, corporate research and development, pollution control, and other worthy causes. Instead, the point is simply that such provisions had been over-extended through the years. Shelter organizers were able to attract investors to projects that had little or no economic return, only tax advantages. It was merely a happy coincidence for economists that their view about the inefficiency of disparate effective tax rates seemed to mesh with the more populist view about the inequity of disparate effective tax rates. It was clear that investments were misallocated, simply because so many high-income individuals and corporations were paying no tax.

Several issues of perennial interest to tax reformers are distinctly absent from the above list of developments affecting this new climate for tax reform. In particular, this list excludes the classical argument that loopholes for the rich should be closed in order to

restore the "intended" degree of progressivity given by the graduated marginal rate structure (see Musgrave, 1987, and Pechman, 1990). The list excludes consideration of revenue. It excludes perennial (and therefore "traditional") arguments about the remaining effects of inflation on the measurement of taxable income, and the double taxation of corporate source income. Senator Bill Bradley was probably the first member of Congress to grasp the new climate for tax reform. In his first term as Senator, he devoted considerable energies to fashion a comprehensive tax reform plan, co-sponsored with Rep. Dick Gephardt and introduced as the Fair Tax Act of 1982. He considered the classical arguments for tax reform and rejected them. He did not propose further indexation for inflation or integration of corporate and personal taxes. He decided not to try to close loopholes in a way that would raise the aggregate burden of high-income taxpayers. Indeed, he decided not to raise revenue at all, or even to change the distribution of tax burdens. The reasons for such strategy may seem obvious now, namely, lower marginal rates, less complexity, more similar tax burdens for those in the same income group, and a more efficient allocation of resources. But consider how colleagues must have wondered at the time: if this proposal does not change the amount of tax paid in total or by any particular income group, then why bother? Put bluntly:

> Simplification for the sake of simplification is to beat your brains out and go through the whole process and then end up without a dime's dent in the deficit. (Senator Packwood in the Washington Post, November 30, 1984)

The Bradley-Gephardt proposal was a modified flat tax in the sense that it would eliminate a long list of "loopholes," broaden the base,

and reduce marginal tax rates to only three tax brackets of 14, 26, and 30 percent. Major personal deductions were retained, such as home mortgage interest, charitable contributions, and state and local income and property taxes, but they applied only against the 14 percent rate. The return would not fit on a post card, but filing would be simpler because many taxpayers would use the enlarged standard deduction. Other forms were eliminated altogether. Taxes would rise for shelter abusers, and fall for others. The plan would repeal the ITC and reduce the corporate rate to 30 percent, but leave corporate taxes unchanged.

There seemed to be much discussion of modified flat tax proposals, but nobody seemed to know quite how to forge the right coalition. The Bradley-Gephardt plan was not taken too seriously. Yet the Reagan re-election campaign was apparently afraid that Walter Mondale would endorse Bradley-Gephardt and steal the issue for the Democrats. They tried to preempt the Democrats in the February 1984 State of the Union Address by having Reagan order the Treasury Department to conduct a "study" that would not be due until after the election. Then, as it turns out, Mondale never got close to endorsing Bradley-Gephardt.

The ensuing debate involved several years, many interesting personalities, and umpteen versions of tax reform. Besides Hall-Rabushka, Bradley-Gephardt, and the Republican plan called Kemp-Kasten, the public had opportunities to examine the Treasury Proposal, the President's Proposal, Rostenkowski's "staff option," the House Bill, Senate Finance Committee Chairman Bob Packwood's staff option, and the Senate Bill, as well as the final conference agreement signed as the Tax Reform Act of 1986. The political interactions of these policymakers and their various proposals have been fully described elsewhere, so I

will try to touch on a few issues of particular interest.

Because of the political ploy of ordering a "study" to be completed after the election, tax experts at the Treasury Department were given a rare opportunity to craft a very apolitical document. White House officials did not even want to know what was in it. Within this ivory tower environment, economists had unusual say over formulation of the plan. For this reason, many other economists were surprised that Treasury economists did not propose a consumed-income tax that would allow a deduction for all savings and expensing of all investment. It would reduce the cost of capital, set all marginal effective tax rates to zero, and remove problems measuring real income. McLure and Zodrow (1987, pp. 40-41) list several reasons for rejecting a consumed-income tax, but the most compelling is that it would have to include all borrowing in the tax base.[28] The public was simply not ready to accept the idea of paying a tax on borrowed funds that did not even represent income to the taxpayer (see Regan, 1988, p.206). Instead of including all borrwed funds, a consumed-income tax could disallow all interest deductions, but public acceptance of this idea was no easier.

Even within an income tax, some economists in the Treasury wanted to allow expensing for investment. Without including borrowing in the tax base or disallowing interest deductions, however, expensing would make marginal effective tax rates negative: for a debt-financed investment, the firm would get to deduct both the value of the asset and the normal return on it. Expensing by itself would cost considerable

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[28]See footnote 19 above. The taxpayer must be consuming all income and all borrowed funds, minus any monies put into various forms of savings and investment. Thus the inclusion of borrowed funds would be offset immediately by a deduction if they were used to make an investment

revenue and not fix problems with shelters.

Thus the decision was made to design a more comprehensive income tax base. The Treasury followed the new logic of tax reform insofar as they wanted a plan that was revenue neutral, distributionally neutral, and simpler, one that would equalize the tax treatment of individuals in the same income group (the equity version of the level playing field), and equalize the tax treatment of different types of investment (the efficiency version of the level playing field). Among other provisions, the Treasury proposal would have eliminated percentage depletion, expensing of intangible drilling costs for oil and gas, expensing of many expenditures in multi-year production, the exclusion for most employee fringe benefits, the deduction for state and local taxes, and the entire minimum tax. It would have substantially increased the personal exemption.

As in Bradley-Gephardt, the original idea was to be revenue neutral for individuals and for corporations considered separately. When all the tough choices were made about which credits and deductions to eliminate, these constraints initially led them to three personal rate brackets of 16, 28, and 37 percent. This result was a bit of a disappointment, since they had hoped for lower rates. When the same process of base-broadening was conducted on the corporate side, enough new revenue was generated to reduce the corporate rate all the way to 28 percent. This base broadening included the repeal of the investment tax credit and a depreciation scheme that was based on economists' estimates of real economic depreciation (Hulten and Wykoff, 1981).

Officials in the Treasury had two major problems with this outcome. First, Secretary Don Regan had an aesthetic problem. He thought the

personal rates of 16, 28, and 37 were cumbersome. He wanted something simple and catchy like the earlier Kemp-Roth 10-10-10 or the Conable-Jones 10-5-3. "Give me 15-25-35," he ordered. Second, attorneys in the Treasury had a legal problem. With a rate as low as 28 percent, the corporate tax might become a shelter which allowed high-income individuals to incorporate themselves, pay the 28 percent rate, and avoid the higher 37 percent personal rate. The corporate rate and the top personal rate needed to be closer together. The obvious solution to both problems was to lower the personal rates to 15-25-35, and make up the revenue by raising the corporate rate to 33 percent.[29]

Thus was born the proposal to shift $150 billion of burden over five years from individuals to corporations. The Treasury had an aesthetic problem and a legal problem, operating in a relatively apolitical environment. Their solution was a political master-stroke. All subsequent versions of tax reform retained a similar shift of at least $100 billion over five years, for good political reasons. It allowed tables of estimated distributional effects to show a tax cut for every personal income group, even in a revenue-neutral bill. Otherwise the table would have to show some tax increases to offset any group that received even a small net tax cut. Everybody knew that individuals somewhere bear the ultimate burden of corporate income taxes, but most simply ignored it. Besides, as pointed out earlier, the corporate tax had fallen from 30 percent of federal revenue in 1954 to 6 percent of

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[29]Note that the corporate rate could have been raised without affecting the overall corporate burden, by allowing more accelerated depreciation for example. The Treasury experts were by this time wedded to the idea of a tax on comprehensive economic income, however. Given the "ideal" tax base, a higher rate necessarily meant a higher burden. For more discussion of the reasons for this shift, see McLure (1986, p. 1643).

federal revenue in 1983. Perhaps this trend had gone too far.

Would President Reagan recommend a corporate tax increase of this magnitude, after just pushing the largest corporate tax decrease in history? For the success of tax reform, the device was brilliant, like Nixon going to China. On the other hand, it is not clear whether Reagan confused the cut in corporate rate with the increase in corporate burden. The day after praising the Treasury plan in his 1985 State of the Union Address, Reagan was interviewed by the Wall Street Journal (February 8, 1985):

> The president said he hadn't studied the plan in sufficient detail to realize that it sought an increase in the relative tax burden on business. Moreover, he suggested that taxes on corporations are merely passed on to individuals anyway. "Someday," he said, "I would hope that we could arrive at a tax structure that would recognize that you can't tax things, you only tax people."

Following Bradley-Gephardt, the Treasury (1984) proposal adopted the new logic of tax reform. It was revenue neutral, distributionally neutral, and leveled the playing field. Unlike Bradley-Gephardt, however, it did not eschew traditional tax reform issues. It addressed the integration of corporate and personal taxes by providing firms with a deduction for 50 percent of dividends paid. It addressed the problem of inflation in measuring real income by providing indexation of interest, depreciation, and capital gains. Some of these provisions made the proposed law more complex, rather than simpler.

Moreover, these problems with inflation simply do not have the same kind of effect as bracket-creep. With fixed nominal tax brackets, any rate of inflation would keep raising taxes as a percent of income by continuously pushing individuals into ever higher brackets. Thus the

indexing of brackets in the 1981 bill was crucial to the subsequent making of tax policy in the era of deficits. These other problems are different. Inflation does reduce the real value of depreciation deductions, and it thus takes the effective tax rate to a new higher level. However, a constant rate of inflation does not keep raising the effective tax rate beyond that level. Similarly, the taxation of purely nominal capital gains and nominal interest raise real taxes to a higher level. In these cases, an increase in the rate of inflation will increase the tax, but a decrease in the rate of inflation will decrease the tax. Any given level of inflation could be offset by ad hoc adjustments such as accelerated depreciation or an exclusion for part of capital gains.

Thus the point of these additional forms of indexing in the Treasury proposal was to account automatically for variations in the rate of inflation. The effective tax rate would be invariant to the rate of inflation only with indexing for depreciation, interest, and capital gains. It was a traditional economist's type of reform, of no interest to Congress or constituents.

In fact, economists have long wondered why businesses do not show more interest in these forms of indexation. After all, the increase in later years' depreciation deductions to account for inflation would raise the present value of allowances and thus reduce the cost of capital. While businesses would rather have indexation than nothing, the relevant choice usually is between indexation and acceleration. For a given revenue cost, acceleration provides deductions that are earlier and more certain. Businesses see indexation as a provision that could subsequently be repealed by Congress, thus providing lower benefits than

were expected at the time of investment. Moreover, traditional accounting practices are dominated by nominal magnitudes. Accountants are uncomfortable with deductions that are uncertain in nominal terms, even if they are more certain in real terms. Similarly, businesses showed little interest in the deduction for dividends paid.

For better or worse, these traditional reform provisions for indexing and integration did not survive the new climate for reform. The 50 percent dividend deduction was cut to 10 percent by the President's proposal, delayed by the House bill, and dropped by the Senate bill. Interest indexing was deemed unworkable and did not appear in any version beyond the Treasury plan. Capital gains indexing was modified by the President's proposal and dropped thereafter. Finally, depreciation indexing was retained by the President's proposal, cut by the House, and dropped by the Senate. See details in **Figure 2.**

The Treasury proposal was also criticized for raising the cost of capital. Even though the corporate rate was reduced from 46 to 33 percent and allowances were indexed, the ITC was repealed and asset lives were lengthened.[30] Typical were comments of the Chamber of Commerce (1984):

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[30]The marginal effective tax rate in the corporate sector was 29 percent under 1985 law and would rise to 43 percent under the Treasury proposal, as estimated by Fullerton (1987). Considering components separately, the 29 percent rate would rise to 41 percent with just interest indexing, would rise to 40 percent with just repeal of the ITC, would fall less than 1 percent with just the full taxation of real capital gains, would fall to 28 percent with just the deduction for half of dividends, and would fall to 27 percent with just the personal rate cuts. It would rise to 30 percent with just the corporate rate cut, because the reduced tax on equity is more than offset by the reduced advantage if nominal interest deductions. Under the same assumptions, this effective tax rate is 34 percent under the President's proposal.

Figure 2
Depreciation Indexing, A Case Study in Policymaking

The basic economic argument for depreciation indexing is that policy should decide the level of tax revenue and investment incentives, without interference from changes in the rate of inflation. The Accelerated Cost Recovery System enacted in 1981 was intended, in part, to offset the extraordinarily high rates of inflation at the time. But when inflation fell dramatically, accelerated allowances were more generous than required to offset inflation. Indexing would maintain the real value of deductions whatever the rate of inflation.

At the Treasury in 1985, I might have expected noneconomist policymakers to reject these arguments, but I did not expect trouble from economists as well. Once interest indexing was rejected as unworkable, economists at the Joint Tax Committee argued that the system would be unbalanced with one and not the other. The advantage of deducting inflation-bloated interest payments was approximately offset by the disadvantage of deducting inflation-eroded depreciation allowances. Treasury countered that, if they were in the same tax bracket, the lender's extra tax would exactly offset the borrower's benefit, so depreciation should be considered separately. They responded that lenders were generally in lower tax brackets than borrowers.

Rostenkowski's staff option ignored depreciation indexing, but Treasury came up with a partial plan that indexed allowances for 80 percent of the extent to which the rate of inflation exceeded 5 percent. It had no estimated revenue implications, since projected inflation was less than 5 percent, but Congress was still uninterested. We prepared all the economic arguments for indexing, with all the charts and graphs, and drove to Capitol Hill to meet with the Ways and Means task force on depreciation headed by Dick Gephardt. We never got to discuss it. When the issue arose, Gephardt simply said that Rostenkowski had talked on the phone with Jim Baker while we were driving over. Baker had made a plea for this partial indexing plan, and Roskenkowski had agreed to 50 percent of inflation over 5 percent. It was a done deal.

Treasury worked more closely, in some ways, with the Republican Senate, and managed to get depreciation indexing into Packwood's staff options. Senator Danforth, a Republican on the Finance Committee, got it taken out altogether. Even later the issue had some appeal to Deputy Treasury Secretary Richard Darman, but not for economic reasons. He simply saw it as a way to reduce the cost of capital with most of the revenue cost outside the five-year budget window. Darman had become known for a certain sleight of hand, so I even tried suggesting to him that we support the right policy for the wrong reason: by slowing down allowances but indexing at the same time, we could reduce the cost of capital and raise revenue in the five-year budget period. Still it didn't fly.

> This increased tax wedge on capital income would reduce capital investment and, consequently, harm economic growth rates, reduce U.S. international competitiveness and exacerbate the federal deficit.... [It] constitutes a reversal of the pro-growth policies inaugurated in 1981.

Finally, all of these "modified flat tax" proposals could be criticized for offering false rate reduction. Consider, for example, a world where all compensation is always paid 80 percent as wages and 20 percent as fringe benefits, and where wages are subject to a tax rate of 50 percent. A revenue neutral reform could then broaden the tax base to include all fringes and reduce the tax rate to 40 percent. Yet it would have absolutely no effect. If the ratio of fringes to wages is fixed, as assumed, then 40 percent of compensation is paid in tax before the reform as well as after. The rate reduction is more effective if fringes are fixed as work effort responds. The overall effect depends on the flexibility of all tax advantages such as fringe benefits, interest deductions, and charitable contributions.

Thus the release of the Treasury proposal in November of 1984 was accompanied by acclaim from many economists and traditional reform advocates, alarm from businesses and capital formation advocates, and yawns from the general public. Senator Bob Packwood, the Chairman of the Finance Committee, said "I sort of like the tax code the way it is" (Washington Post, November 30, 1984). Secretary Regan quickly noted that his proposal "was written on a word processor. It can be changed" (Washington Post, December 8, 1984).

The next most crucial step in the progress toward tax reform was the January 1985 job switch by Donald Regan and James Baker. It put an advocate of tax reform next to the ear of the President, and a savvy

politician in charge of main tax reform effort. The President did not really need to be convinced, however, as he was always in favor of lower tax rates. With some misgivings, the Administration decided to make tax reform the primary domestic policy initiative of Reagan's second term. So, the new Treasury Secretary Baker and Deputy Secretary Richard Darman set about trying to make the proposal more acceptable. Besides reducing the traditional reform provisions for indexing and integration, they provided better investment incentives through acceleration of depreciation allowances. They restored tax breaks for oil and gas, fringes, and some other popular benefits. In order to keep the personal rates at 15-25-35, they recouped some revenue through a tough additional minimum tax. Then, a last minute computer snag left the new proposal still significantly short of revenue. Thus was born the "windfall recapture tax" proposal to raise $56 billion over the five-year budget period. The logic was that firms had already made investments to earn income they had expected would be taxed at the 46 percent rate, so the reduction to a 33 percent rate provided an unexpected windfall that could be recaptured. Upon the release of the President's proposal in May of 1985, this provision caused the biggest stir. It was viewed as a retroactive tax and therefore unfair.

When I was asked to speak to various groups about the tax reform process, I used to bring with me a balloon that I would under-inflate to fit in the palm of my hand. The revenue needed for neutrality with current law is like the air in this balloon, I would say, and each of the other demands on the tax system is a constraint, like pressing on one part of the balloon. When I pressed one part of the balloon, I got a bulge sticking out somewhere else. The pressure to reduce rates to

15-25-35 created in the Treasury proposal a bulge in the form of "economic" depreciation allowances that were viewed as inadequate to provide basic incentives for capital formation and competitiveness. The pressure to accelerate those allowances in the President's proposal just pushed the bulge somewhere else, primarily in the form of the windfall recapture tax.

Dan Rostenkowski, Chairman of the House Ways and Means Committee, accepted the President's challenge to push tax reform. Actually, he thought it was based on solid Democratic principles of fairness: it would take poor off the tax roles, remove shelters for the rich, and raise corporate taxes. Democrats could hardly reject such suggestions. Then, in the Committee mark-up during the fall of 1985, Rostenkowski was under considerable pressure to restore several tax breaks, primarily state and local tax deductions. He also dropped the recapture tax. The result was a major bulge in personal tax rates, with the top bracket reduced only to a 38 percent rate. The House bill also did not provide the full $2000 exemption that was viewed as important to take those below the poverty line off the tax roles. Finally, it shifted $140 billion over five years from individual to corporate taxes.

House Republicans objected, and they managed to stop the entire bill on a procedural rule. The primary domestic policy initiative of the President's second term was killed by lawmakers in his own party. It was only resurrected when President Reagan travelled to Capitol Hill. He encouraged Republicans to keep tax reform alive and vote for this bill, by promising to veto it if adequate changes were not made in the Senate. H.R. 3838 limped through on a voice vote in December.

Robert Packwood, Republican Chairman of the Senate Finance

Committee, had no real interest in taking up tax reform at all. Quotes above indicate that he liked the existing tax code, saw no point in simplification for its own sake, and had greater concern about the deficit. However, he could not let the Republican President's major domestic policy initiative die on his doorstep. He made up yet another set of staff options, for the Finance Committee deliberations. In order to suppress the personal rate bulge and the corporate tax bulge, Packwood's staff options suggested disallowing deductions for business payments of excise taxes. But the air of the balloon was simply pushed out into a new bulge. This veiled increase in excise taxes was preferred to the increase in corporate taxes by some lawmakers, but it violated accepted practices of measuring net income by the difference between gross income and legitimate business expenses such as excise taxes paid. It did not survive the mark-up. Moreover, Senators on the Committee were quick to restore many tax breaks that they themselves had devised in past years, from municipal bonds to natural resources. The coup de grace was an accelerated depreciation scheme for "productivity property" which allowed lawmakers to pick and choose which assets in which industries were to be deemed "productive" enough to warrant special treatment. The revenue cost was not as big a problem as the symbol: this concept flew in the face of the entire spirit of tax reform that would level the playing field and leave profit-maximizing firms with the task of deciding which were the best investments. It was business as usual, a depreciation scheme written by Charls Walker and Ernest Christian, the same corporate lobbyists who had devised the earlier ACRS in 1981 and even ADR in 1971.

With a revenue hemorrhage on his hands, Chairman Packwood decided

to stop the mark-up. On Friday, April 18, Packwood had his famous two-pitcher lunch with Chief of Staff Bill Diefenderfer at the Irish Times. They discussed the impending death of tax reform, a possible minimalist strategy of closing a few loopholes to get some rate reduction, and an alternative more dramatic strategy. What would really make tax reform attractive, they reasoned, would be very low rates. If the top rate were only about 25 percent, for example, then maybe taxpayers wouldn't mind losing a few deductions. What would it take to get rates that low? Joint Tax Committee Chief of Staff David Brockway was asked to devise a new plan altogether. He returned with no state and local tax deduction, no mortgage interest deduction, and no charitable contribution deduction, but a top rate of 25 percent.

This plan became the starting point for a "core" group of seven Senators who showed some interest. They "spent" a point or two of rate reduction to add back most of those key, popular personal deductions. Since the low top rate created a huge tax cut for high-income brackets, and the bill was intended to be approximately distributionally neutral, they accepted other changes that would raise the tax on high-income individuals such as the full taxation of nominal capital gains and the disallowance of some "passive losses." These hits were not easy to take, but finally the balloon was starting to assume a round shape.

The Finance Committee ended up with a 27 percent rate, an income range over which the benefits of exemptions and the lower 15 percent rate bracket were phased out by a 5 percent surcharge, and a unanimous 20-0 vote for tax reform. The full Senate passed it 97-3. The conference with the House required enough revenue-losing modifications to require a top rate of 28 percent. With the 5 percent surcharge over

the phase-out range, the maximum marginal rate was actually 33 percent. The President signed it on October 22, 1986.

V. Some Final Remarks

The Tax Reform Act of 1986 was a very intricately constructed package of provisions that each depended on the others. The original "supply side" idea of greater incentives gave the motivation for lower rates, but the era of "deficits" implied that these rate reductions must be paid for by base-broadening and a "level playing field."

Plenty of criticisms were leveled at the legislation, but mostly they were attempts to take some of the interwoven provisions without others. "We like the lower corporate rate, but we don't like the slower allowances." As this over-simplified example makes clear, you can't have one without the other. In particular, many complaints were heard about the full taxation of nominal capital gains. Certainly there are good reasons for a capital gains exclusion, or at least for indexing in order to tax only the real capital gain. But this imperfect provision was a necessary price of the package, since it was the only way to keep the percentage tax cut in the top income group down to one digit. Even then lower income groups received smaller cuts. Similarly, neither the minimum tax nor the passive loss rule would be needed in a perfect system, but they were needed to achieve this reform. They raised revenue from existing shelters of high-income taxpayers, and they help prevent new shelters as discussed below.

Others point to the anomaly that the marginal tax rate increases from 15 percent, to 28 percent, and 33 percent, but then falls back to 28 percent for the highest income taxpayers. It does not seem fair to

tax the richest at a lower rate than those less rich. However, while the marginal tax rate is important for the incentive to earn one more dollar, it has little to do with equity. Fairness is best measured by taxes paid as a fraction of income, the average tax rate. Since the first block of income is untaxed, someone in the 15 percent marginal rate bracket has a tax that is less than 15 percent of total income, and someone in the next 28 percent bracket has a tax that is less than 28 percent of total income. The stated purpose of the 5 percent surcharge in the penultimate income group is to "phase-out" the benefits of the untaxed block of income and the 15 percent rate block of income, bringing the total tax up to 28 percent of total income. As soon as the average tax rate hits 28 percent, the 5 percent surcharge ends, and the taxpayer is back down to a 28 percent marginal rate. In other words, the average tax rate is always less than 28 percent until reaching the highest income level where every dollar is taxed at 28 percent.[31]

Still, why try to claim that the top rate is 28 percent instead of admitting the 33 percent rate and just extending it out to all taxpayers above a certain income level? In the first place, Senators did not grant that the top rate was really 33 percent. Yes or no, they would ask, is it possible for anyone's tax to exceed 28 percent of their taxable income? No. In the second place, when Senators were trading off key deductions against each percentage point of tax rate, as it increased from 26 to 27 and then 28 percent, they were told that a one percent increase in the top bracket would raise about $30 billion over

[31]This provision is similar to the maximum effective rate limitation of 1944-63 that capped the average tax rate below the 90+ percent top marginal tax rate. See Table 1.

five years. In contrast, extending an official 33 percent rate bracket to those few taxpayers above the phase-out range would raise only about $25 billion over five years. It made no sense to these Senators to enact a 5 percentage point increase in the top rate to raise $25 billion when a 1 point increase in the top rate would raise $30 billion.[32]

Another question is whether Congress went too far in attacking shelters, the "whipping-boy" of tax reform. First, rate cuts would make shelters less attractive simply by reducing the tax saving from sheltering a dollar at the margin. Second, longer lives for both equipment and structures would chip away at the basic building blocks of which shelters are constructed. Third, the capital gains rate hike would make the conversion of ordinary income into capital gains income irrelevant. Fourth, at-risk rules were tightened. Fifth, the passive loss rule was designed specifically with shelters in mind. Finally, the tough new alternative minimum tax would keep any taxpayer from overusing what was left of any tax shelter arrangement. Was this overkill? In combination, these features are guaranteed to stop pure shelter arrangements.[33] And once a shelter is stopped, each additional hit is no longer relevant. The passive loss rule may be important in preventing pure shelter arrangements, but it acquires little long-run revenue because virtually nobody goes so far as to pay it.

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[32]Current estimates of the Congressional Budget Office (1990) suggest that a 1 percentage point increase in the 28 percent rate would raise $50 billion over five years, while the extension of the 33 percent rate would raise $40 billion over five years.

[33]McLure (forthcoming, footnote 92) calls this the "vampire approach" to dealing with tax shelters. "In order to be safe when dealing with a vampire, one drives a stake through the heart, hangs a cross around the neck, places a mirror over the eyes, and fills the coffin with wolfsbane."

Although more taxpayers were induced to use the standard deduction instead of itemizing, these anti-shelter and other provisions helped keep the final bill far from a "simplification." But that goal was a bit of a red herring anyway. (For an opposing view, see McLure, forthcoming). Uninformed taxpayers thought simplification meant having two rate brackets instead of eleven, though calculating taxable income is a much tougher job than using taxable income in the rate tables to figure the tax. Also, the media used "simplification" to summarize other aspects of tax reform.[34] Simplification was primarily important to the extent that the average taxpayer thought that high-income individuals were using complexity to avoid their fair share of tax. With nice simple digits like 10-10-10, 10-5-3, or 15-25-35 appearing throughout the decade, one might think that a reform needs to be not simplification, but simple-minded.

The first theme of this paper is the supply side logic of personal marginal rate reductions. Rates were reduced not just in 1981, but again in 1986. President Reagan was able to leave office with the top marginal rate less than half of what it was when he started. Some economic effects of these changes are analyzed in papers appearing in Slemrod (1990). Important associated effects on the distribution of tax burdens are not discussed much here, but evidence on the 1981 changes is debated by the U.S. Congressional Budget Office (1987), the U.S. House of Representatives (1990), and Lindsey (1990).

The second theme of this paper is the impact of deficits on the

[34]For example, the Wall Street Journal of February 8, 1985, repeatedly refers to the "Treasury's tax-simplication plan" and then defines the concept as "drastic tax-rate reduction for individuals and businesses coupled with elimination of a host of tax preferences."

process of tax policymaking. Lawmakers now pay much attention to estimates of revenue impact. For a number of reasons, it seems like too much attention. First, each revenue estimate is only an estimate. It is an imperfect best-guess made by an arbitrarily assigned estimator who uses old data, a set of arbitrary assumptions, and error-prone computer calculations. A different estimator could easily make other reasonable assumptions and get a different answer. Second, these revenue estimates are always relative to existing law, as if that were some valuable standard against which to judge all changes. There is nothing absolute about current law, for that is why changes are being considered in the first place. An example is the way that any indexing proposal appears to lose billions of dollars, relative to the tyranny of current law, when in fact inflation under current law might be raising billions of dollars of revenue more than was intended (see McLure, 1986, p. 1645). Third, other good reasons to enact some tax change may be overwhelmed by the estimate of a revenue loss, given the difficulty of reducing each dollar of deficit. Fourth, the process has established five-year budget periods of absolute importance. Four years doesn't matter, or six years, or any kind of present value calculation. The process becomes incredible when minute details of several small provisions that each add $200 million of revenue are combined to pay for a big provision that costs tens of billions, with a reasonable error of plus or minus one or two billion.

These criticisms are quite valid, but what is the alternative? The process absolutely needs some kind of discipline. As Senator Pat Moynihan of the Finance Committee puts it, "Everyone is entitled to his own opinion, but not his own facts" (Birnbaum and Murray, 1987, p.275).

There is no free lunch, and policymakers need a common language for communicating about the necessary tradeoffs among alternatives. Indeed, the tax reform process only really started working properly when the "core" group of Senators came out of their closed room not just with a new low-rate proposal, but with a rule that amendments themselves must each be revenue neutral. Any lawmaker that wants some tax break must, for the first time, recognize its cost in terms of some other added tax. For another example, consider the differences in legitimate estimates of the revenue impact of a change in the capital gains rate. These estimates are not even the same sign let alone the same magnitude. When the rate was raised in 1986, the revenue estimate was positive. Later, other estimates showed that a reduction in the capital gains rate would raise revenue. Either is possible, but not both. The government cannot raise revenue by raising the capital gains rate, and then raise more revenue by lowering it again. The procedures to provide and use revenue estimates can undoubtedly be improved, but in the era of deficits, their importance is here to stay.

The last theme of this paper is the level playing field. Certainly the equity version of the level playing field had a role in making sure that individuals in the same income group could not end up with very different tax burdens due to shelters. This more populist version just happened to support the efficiency version that called for more equal marginal effective tax rates on different assets. Such calculations were popular in the early 1980's, but Merrill (1987) discusses several reasons that these economic models were of only limited importance to the actual policy debate. One such model, however, was used not only in academic research to evaluate alternative proposals in the early 1980's

(see Fullerton and Henderson, 1984), but within the Treasury Department to evaluate successive reform options in 1985-86, and later as the basis for calculations appearing in the Economic Report of the President in 1987 (pp.87-90) and again in 1989 (pp.92-93).

Looking over the decade of tax policy in the making, a question frequently asked is whether the Tax Reform Act of 1986 was a reversal of the Economic Recovery Tax Act of 1981. When asked this very question, most interviewees responded immediately, yes, it was a reversal. Where ERTA accelerated depreciation and expanded the ITC, the 1986 Act slowed down depreciation and repealed the ITC. One bill greatly reduced corporate taxes, the other greatly increased them. Then, after further reflection, or prompting from the interviewer, most added "Well, I suppose that personal rate reduction was one aspect similar in the two bills." A significant minority of interviewees responded immediately, no, it was not a reversal. Some thought that debates about both ERTA and TRA had unusual concern with the structure of taxation (e.g., indexing) and not just revenues.[35] Others pointed immediately to the similarily of the rate reduction.[36]

To the extent TRA did reverse ERTA, via depreciation allowances and

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[35]Before Congress on February 18, 1981, in support of ERTA, Reagan said that "The taxing power of government ... must not be used to regulate the economy or bring about social change." The same logic applied to TRA and the level playing field.

[36]This question is addressed specifically in a paper by Fullerton and Mackie (1989). They measure the efficiency effects of both ERTA and TRA by using a simulation model that incorporates the intertemporal distortion of higher taxes on capital and the interasset distortion of differing effective tax rates. They find that if one adopts the "new view" (that personal taxes on dividends are unimportant disincentives), then the reduced tax on capital in ERTA is more important for overall efficiency. But if one adopts the "old view" (that personal taxes on dividends are important investment disincentives), then the level playing field and additional rate reduction in TRA are more important.

corporate taxes, the reversal did not start with the 1986 bill. The more important bill as a watershed in tax policymaking was the Economic Recovery Tax Act of 1981. The powerful forces of "supply side" thoughts about incentives and rate reduction began with the 1981 bill. Indexing of brackets and the resulting "era of deficits" started with the 1981 bill. And the process of using the tax code to encourage or reward particular economic activities through various tax provisions culminated in the 1981 bill. Forever after, projected deficits (shown in Table 3) required these provisions be cut back or repealed. This new era of tax policy was in effect as of August 1981, but its first products were not evident until TEFRA in 1982 and DEFRA in 1984. These bills closed loopholes, slowed depreciation, and started to level the playing field. By 1986, in these respects, the Tax Reform Act was simply more of the same.

ACKNOWLEDGEMENT

Financial support was provided by a grant from the Olin Foundation to the National Bureau of Economic Research. This paper would not have been possible without the generous time for interviews and comments provided by busy former and current policymakers such as J. Gregory Ballentine (Deputy Assistant Secretary for Tax Analysis, Treasury Department, 1981-83, and Associate Director, Office of Management and Budget, 1983-85), David Brockway (Chief of Staff, Joint Tax Commitee, 1983-87), Buck Chapoton (Assistant Secretary for Tax Policy, Treasury Department, 1981-84), Martin Feldstein (Chairman of the Council of Economic Advisors, 1982-84), Rep. Willis D. Gradison, Jr. (Member, Committee on Ways and Means, 1975-present), Larry Lindsey (Associate Director for Domestic Policy, the White House, 1989-present), Mark McConaghy (Chief of Staff, Joint Tax Committee, 1981-83), Ronald A. Pearlman (Assistant Secretary for Tax Policy, Treasury Department, 1984-86, and Chief of Staff, Joint Tax Committee, 1987-present), John Salmon (Chief Counsel, Committee on Ways and Means, 1981-84), Emil Sunley (Deputy Assistant Secretary for Tax Analysis, Treasury Department, 1977-81) Randy Weiss (Deputy Chief of Staff, Joint Tax Committee, 1983-88), and Jim Wetzler (Deputy Chief of Staff, Joint Tax Committee, 1979-83). I am also grateful for helpful suggestions from Larry Dildine, Drew Lyon, Charles McLure, Joe Minarik, and Jon Skinner. The research reported here is part of the NBER's research program in Taxation. Any opinions expressed are those of the author and not those of the National Bureau of Economic Research.

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