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Douglas Holtz-Eakin

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THE TAX REFORM ACT OF 1986: SIMPLICITY, EQUITY, AND EFFICIENCY

by

DOUGLAS HOLTZ-EAKIN*

INTRODUCTION

The Tax Reform Act of 1986 (TRA86) has added another chapter to the already crowded tax history of the 1980's. Since the election of Ronald Reagan in 1980, the nation has seen several major tax changes: The Economic Recovery Tax Act in 1981, The Tax Equity and Fiscal Responsibility Act in 1982, and TRA86. With tax reform now well down on the list of legislative priorities (at least until next year!) it seems a propitious time for a general assessment of the structure of the federal tax system.

A more compelling motive for examining the latest tax code than merely catching up on the most recent developments is that TRA86 was widely advertised as a sweeping reform designed to return the federal income taxes to basic principles of taxation. If so, what principles should govern income taxation? Is TRA86 consistent with these guidelines for tax policy?

Taxes have three effects on the economic activity of the nation. First, economic life is more complicated. Tax records must be maintained, returns filed, and the tax consequences of each transaction considered. Second, the distribution of taxes paid in part determines the allocation of well-being across individuals, income classes, industries and geographic areas.¹ Finally, taxes interfere with the efficiency (in a technical sense to be made precise below) of a market economy. The correct measure of success of TRA86 is the degree to which it satisfies the tripartite criteria of simplicity, equity, and efficiency.

This paper reviews TRA86 with an eye toward these issues. The order of inquiry is as follows. Section I contains a brief summary of the salient features of TRA86. This is not a comprehensive presentation of the changes in tax provisions, but simply a listing of the major changes in the personal and corporate income tax codes, along with a preview of how they affect each of our criteria. Sections II through IV examine, in order, the impact on simplicity, equity, and efficiency. In each instance, basic principles are outlined and the specific impact of TRA86 is examined. The final section is a summary with some conclusions.

*Assistant Professor, Columbia University; and Fellow with the National Bureau of Economic Research. B.A., Dennison University; Ph.D. (Economics), Princeton University. I wish to thank Amy Ellen Schwartz, Harold Watts, Susan Rose-Ackerman and the editors for helpful suggestions. I remain responsible for all opinions expressed herein.

¹The role of tax policy should not be overstated as the disposition of tax revenues will also have differing effects on individuals.

Some preliminary comments and caveats are in order. First, the question of ultimate interest is the welfare of individuals in the economy. While society may collect some taxes indirectly through business activity, ultimately it is people that pay taxes. Accordingly, one should judge a tax system's desirability by its impact on the economic decisions and the well-being of individuals. For example, in analyzing corporate income tax, one should not stop with a determination of how the tax code affects corporations. Rather, the basic issue is how it affects individuals. Under this view, the corporate tax code is a particular method of collecting taxes (through corporations) from certain individuals — the owners of corporate capital. Collecting the tax from individuals via a corporation income tax may produce changes in corporation investment, employment, and financial policies. While these are interesting in their own right, the ultimate goal is to assess their impact on individuals in society.

This framework leads to a second consideration. In judging the impact of the tax law on the welfare of individuals, I assume that individuals themselves are the best judge of their own welfare. This reflects the belief that individuals are well-informed, rational beings with a good sense of their own desires and serves to rule out justifications for tax laws based on paternalistic premises or other potentially meddlesome grounds.

Finally, there are a host of topics omitted from this discussion. First, in an attempt to bring out the important general features of the tax code, many details will be deliberately ignored. For example, this paper will ignore the effects of TRA86 during the transition year 1987. Of course, omission does not imply that these topics are unimportant.

Second, attention is restricted to the federal government tax code. Reform of the federal government tax code is implicitly a simultaneous reform of the individual states' tax systems. As a result, state and local governments may revise their tax systems and, hence, their impact on individuals. These effects are not considered. Further, these revisions in sub-national government tax policy have interesting repercussions on federal tax policy. For example, the recent elimination of state and local sales tax deductibility is expected to raise additional federal revenues. At the same time, it provides an incentive for sub-federal governments to shift away from sales taxes toward a "cheaper" source of revenue. To the extent that shifting takes place, the federal government will not raise the expected revenues and some revision in the individual income tax rates or base may be needed. These thorny issues in tax policy coordination will be ignored in what follows.

To anticipate the conclusions, our latest round of tax reform has reaffirmed the role of income taxation in the U.S. revenue structure, has reduced the tax-based inefficiencies in the allocation of the capital stock, and has made significant improvements in the vertical equity of the tax system. On the other hand, tax reform has not "simplified" taxation. It has perpetuated some ex-

isting horizontal inequities and has created a few new ones.

I. THE TAX REFORM ACT OF 1986

The Tax Reform Act of 1986 is the culmination of a two-year effort to reform the Internal Revenue Code.² In this section, I lay out the basic features of the Act. Section A outlines the revised taxation of individual income, Section B the corporation income tax, and Section C reviews the reform from an integrated perspective.

A. *The Individual Income Tax*

As a matter of accounting, changes in the Code may be decomposed into changes in tax rates and changes in the tax base. TRA86 has substantially changed both components of the tax calculation.

Prior to reform, the personal income tax had fourteen tax brackets with marginal tax rates ranging from a low of 11% to a high of 50%. Perhaps the most publicized feature of the new tax code is the adoption of two statutory tax brackets with marginal tax rates of 15% and 28%; indexed for inflation. This is somewhat misleading, however, as the new Code contains a third "shadow bracket" with a marginal tax rate of 33%. The shadow bracket is the result of two features. First, as incomes rise taxpayers are subject to a "rate adjustment" which gradually eliminates the 15% tax bracket. Second, once the 15% bracket is eliminated, a gradual phasing out of the personal exemption occurs. The upshot is a system with four marginal tax rates: 15%, 28%, 33%, and finally 28% again.³

Who benefits? While rates alone cannot tell the story, one surprising fact is that fewer individuals may face a lower tax rate than anticipated. One estimate is that forty-one percent of taxpayers will not face a lower marginal tax rate; their new rate will be as high or higher than under the previous tax code. Tax rate reductions of 10% or more will occur for only 11% of those taxed.⁴

Major changes have altered the tax base as well. Both the personal exemption and standard deduction (previously referred to as the zero bracket amount) have been raised substantially and indexed for inflation. The personal exemption increases from \$1,080 in 1986 to \$1,950 in 1988 and \$2,000 in 1989. (Recall, however, that it is phased out for the highest income brackets.) Similarly, the standard deduction on joint returns rises from \$3,670 to \$5,000.

²The major steps along the way were the U.S. DEPT. OF THE TREASURY, TAX REFORM FOR FAIRNESS, SIMPLICITY, AND ECONOMIC GROWTH (1984), OFFICE OF THE PRESIDENT, PRESIDENT'S TAX PROPOSALS TO CONGRESS FOR FAIRNESS, GROWTH, AND SIMPLICITY (1985), and the Tax Reform Act of 1986, Pub. L. No. 99-514, __ Stat. __ (1986) (TRA86).

³For a couple filing jointly and having two children, the respective cutoff points are \$29,750, \$71,900, and \$192,930 of taxable income.

⁴Both figures are taken from J. HAUSMAN & J. POTERBA, HOUSEHOLD BEHAVIOR AND THE TAX REFORM ACT OF 1986 (National Bureau of Economic Research Working Paper No. 2120, 1987).

Thus, an individual must have a substantially larger adjusted gross income prior to reaching the first taxable dollar.

There have been several important changes in the base used to calculate taxable income as well. The change affecting the largest number of individuals is the restriction of personal interest deductions to mortgage interest on first and second homes.⁵ Next, TRA86 significantly alters the treatment of investments and investment income. The dividend exclusion is eliminated and all capital gains will now be treated as ordinary income. New limitations apply to deductions permitted for contributions to IRAs and 401(k) plans.⁶ Finally, TRA86 divides investment income into two classes: i) portfolio earnings and regular business activity, and ii) "passive" business activity (e.g., limited partnerships). Investors compute net income within classes, but may not use a net loss in passive activities to offset other income.

The last major change concerns the earned income tax credit which has been increased and indexed for inflation.

B. *The Corporation Income Tax*

Over the past thirty years, the contribution of corporation taxes to federal revenues has been steadily declining. In 1985, the taxes from non-financial corporations were 6.2% of total federal receipts as compared with 21.6% in 1959.⁷ In broad terms, an important feature of the reform is to reverse this trend and increase the relative reliance on taxes from domestic corporations.

Like the individual income tax, the rate schedule for corporations has been revised. The new schedule contains three official brackets: 15% on taxable income up to \$50,000, 25% for income between \$50,000 and \$75,000, and a top rate of 34% for income above \$75,000. The new Code also contains, however, an additional 5% surcharge on corporate income between \$100,000 and \$335,000, so the result is a five bracket system with rates 15%, 25%, 34%, 39%, and finally 34%.

The most important adjustment to the tax base is the restructuring of depreciation allowances which are less generous than previously existed. In the early 1980's, the Accelerated Cost Recovery System (ACRS) instituted generous depreciation allowances in an effort to offset the effects of relatively high inflation on the value of these tax shields over the lifetime of an asset. With the decline in inflation since 1982, these depreciation schedules have provided incorrect incentives for the allocation of investment. TRA86 attempts to rectify this problem. In another important policy change toward physical investment,

⁵Further, deductions are limited when the mortgage exceeds the fair market value of the home or, if the mortgage is incurred after August, 1986, the original cost of the home plus improvements.

⁶Notice that these plans remain tax favored as the interest may accumulate tax free.

⁷The sources of this decline are discussed in A. AUERBACH & J. POTERBA, WHY HAVE CORPORATE TAX REVENUES DECLINED? (National Bureau of Economic Research Working Paper No. 2118, 1987).

the investment tax credit is repealed retroactive in 1986. Finally, the new Code includes a stringent 20% alternative minimum tax on corporate income.

C. *What Hath Reform Wrought?*

The most important feature of the revised income tax system is that it *is* an income tax. Because of the myriad difficulties of correctly measuring the real income from capital, there have been arguments against using income as the basis for taxation. These have spawned an increased interest in alternative tax bases such as a personal consumption tax or a national value added tax.⁸ One major political statement of TRA86 is to reaffirm annual income as the fundamental basis for taxation in the United States for the foreseeable future.

Given, then, the decision to tax incomes, how does TRA86 perform as an income tax? Interestingly, the 16th Amendment to the United States Constitution — which made possible the federal taxation of income — contains no definition of income, but rather leaves the formulation of the tax base to Congress in framing tax laws. In the absence of a compelling legal definition, most economists have adopted the Haig-Simons definition of income.⁹ Haig-Simons (H-S) income is defined as the increase in the potential to consume accruing to an individual over the tax period. As such, it includes all actual consumption of goods and services *plus* those resources which could potentially have been used to purchase goods and services, but were not, hence, net new savings.

Some notation may be useful. Let Y denote income, C consumption of goods and services and dW the change in wealth. Then H-S income is given by:

$$(1) Y = C + dW$$

Phrased in this way, H-S income looks at the uses of income. It could equally well be measured by adding up the sources of income: wages and salary, interest earnings, capital gains, etc. In doing so, these sources of income should be measured net of the costs of earning them since these expenditures are not available for consumption.

H-S income is a useful benchmark for evaluating the latest changes. Consider the treatment of capital gains. Under a pure H-S income tax all capital gains, both realized and unrealized, are counted as income and included in the tax base. In either case, a capital gain constitutes an increase in net wealth (a positive dW) and, hence, potential consumption. TRA86 moves toward this by ending the distinction between long and short term capital gains. On the other hand, TRA86 does not measure capital gains correctly. To do so, one should measure only real capital gains, i.e., net of inflation. Despite indexing of several aspects of the income tax system, the United States does not adjust the taxation of capital for the effects of inflation, particularly the effects on nominal

⁸See Bradford, *The Economics of Tax Policy Toward Savings*, in *THE GOVERNMENT AND CAPITAL FORMATION* (G. von Furstenberg ed. 1980), for a description of the effects of a personal consumption tax.

⁹Due to the work of Robert Haig and Henry Simons at the turn of the century.

capital gains and depreciation allowances. One obvious item for any reform agenda is to index these items so as to correctly measure annual income flows.

As another example, TRA86 restricts the use of losses in passive activities to offset other income. From a H-S point of view, this is an artificial restriction. Losses of any type represent decreases in wealth (negative dW) and should be subtracted from taxable income.

Thus, the United States has adopted a system of income taxation. However, in these (and many other) ways the system fails to tax income correctly. The next sections examine the implications of this policy for the functioning of the tax system.

II. SIMPLICITY

Most people want a simple tax system. Indeed, perhaps the most frequently offered argument in favor of tax revision was that the tax code was unwieldy, if not downright incomprehensible. In a system which relies on voluntary compliance, this is an important issue. In 1982, 58.8% of all tax returns filed were prepared with the help of a tax professional. The average cost of tax preparation, including the cost of time spent in the process, was \$364 per return or more than 9% of the tax liability of the individual.¹⁰

Thus, even for individuals, compliance costs are an important aspect of the tax system and the costs for corporations may be even larger. Is the newly adopted tax system a significant improvement on this front?

The short answer is no. In presenting the new proposal, many commentators focused on the supposed simplicity of having only three tax brackets for individuals. Certainly this is wishful thinking at best, since the calculation of the tax owed for any level of taxable income is embodied in a table for individuals to simply look up. The number of tax brackets does not affect the complexity of the Code.

A second advertised simplification is the elimination of income averaging. Certainly the use of only current income is simpler than the calculations required for averaging. But who benefits? Elimination of income averaging simplifies the Code only for those individuals who would like to average income. That is, it simplifies the Code only for those people who would like it to be more complicated. Simpler does not necessarily mean better.

Further, many of the changes in the tax law will not only not decrease, but actually increase, the complexity of tax compliance. Consider the W-4 withholding forms or the difficulty of distinguishing between active and passive activities. Further, both tax codes contain more stringent alternative minimum taxes which are likely to affect an increased number of individuals

¹⁰All figures are taken from J. SLEMROD & N. SORUM, THE COMPLIANCE COST OF THE U.S. INDIVIDUAL INCOME TAX SYSTEM (1982) (unpublished manuscript).

and firms. In effect, the United States simultaneously runs both a regular and “shadow” tax system for both individual and corporation income. For those who need to calculate which system minimizes their tax, there is an obvious increase in complexity.

However, not all the news is bad. TRA86 does offer some significant reductions in the costs of taxpayer compliance. First, the combined increase in personal exemptions and standard deductions will reduce the number of taxpayers who will choose to itemize deductions and thus simplify their returns. Moreover, the indexing provisions ensure that these individuals will not resume itemizing simply due to the effects of inflation. Second, the treatment of capital gains as ordinary income reduces the amount of tax planning required in the process of portfolio management. Finally, the combination of lower tax rates and a higher standard deduction reduces the incentive for illegal tax evasion. To the extent that this reduces the explicit costs of tax collection and implicit costs due to declining taxpayer morale, there will have been achieved a significant decrease in the total costs of taxpayer compliance.

III. EQUITY

What constitutes a “fair” tax system? Traditionally, two different notions have dominated the design of tax policy. Horizontal equity is the injunction that equals be taxed equally, while vertical equity requires that those with a greater ability to pay be taxed at a higher average rate.

While these may appear to be straightforward guidelines, they have produced some vexing problems of implementation. The first of these is the notion of “equals.” When are people truly equal? While some attempts have been made to frame the question in terms of unobservable happiness — referred to by the somewhat archaic term utility — a more prosaic approach is simply to use income. That is, horizontal equity requires that those with equal incomes should be taxed equally. Similarly, vertical equity dictates that those with greater income should be taxed more heavily.

As discussed above, the definition of income is not clear cut. However, even settling on the H-S (or some other) measure of income does not completely solve the problem. Whose income should be taxed; that is, what should be the unit of taxation? Further, over what period should the income of this unit be measured?

With respect to the first question, the two most likely choices are the individual and the family. The United States has traditionally chosen the family as the basic unit of taxation, but this raises questions of equity when individuals choose to marry. In fact, no income tax system can simultaneously satisfy three requirements: i) taxation on the basis of family income, ii) increase of marginal tax rates, and iii) marriage “neutrality.” To see this, consider the following simple example. Assume that the tax system has three brackets: the

first \$10,000 is untaxed, income between \$10,000 and \$50,000 is taxed at a rate of 20%, and the remainder is taxed at a rate of 50%. Consider four individuals Bob, Ted, Carol, and Alice. The table below shows their respective incomes, their tax liability if taxed as individuals and their taxes assuming that Bob marries Carol and Ted marries Alice:

	Ted	Alice	Bob	Carol
Income	\$40,000	\$40,000	\$70,000	\$10,000
Individual Tax	\$6,000	\$6,000	\$18,000	\$0
Family Tax	\$23,000		\$23,000	

Notice that this tax system satisfies horizontal equity with respect to the two families. Both families have \$80,000 in income and pay equal taxes. In the process, however, the system produces a "marriage tax." Ted and Alice increase their tax liability by \$11,000 by marrying and Bob and Carol increase theirs by \$5,000. It is possible to eliminate the marriage tax by taxing individuals in each family, but this would violate horizontal equity across families. The two families, each with \$80,000 in taxable income, would pay different taxes.¹¹

The United States has attempted to deal with this problem through a combination of different rate schedules for individuals versus married couples and by use of a deduction for two-earner families. TRA86 eliminates the two-earner deduction and, other things equal, increases the marriage tax and horizontal inequities across individuals.¹²

Taxation on the basis of single year income can produce inequities over individuals' lifetimes. In the example above, suppose that Alice earned \$40,000 each of two years and paid taxes of \$6,000 in each year. Carol earns \$10,000 in the first year, but \$70,000 in the next year. Even though lifetime incomes are equal, Carol pays \$6,000 more in taxes than Alice.¹³

In theory, one could argue for a "lifetime" income tax to alleviate this problem.¹⁴ In practice, the use of income averaging tended to equalize lifetime tax burdens for those with highly uneven income streams. Thus, on a second score the elimination of averaging is an undesirable feature of the new tax code.

In any event, despite its potential weaknesses, the United States remains wedded to a system of taxation based on annual income. Given this, to what extent is the United States tax system consistent with the principles of vertical

¹¹If individuals are the unit of taxation, there is an advantage to residing in a state with community property laws so that taxable income may be equally split among the partners.

¹²Importantly, other things are not equal. The size of the marriage tax depends on both the slope of the marginal tax rate schedule and the untaxed income due to standard deductions and personal exemptions. For a complete assessment, see H. ROSEN, *THE MARRIAGE TAX IS DOWN BUT NOT OUT* (National Bureau of Economic Research Working Paper No. 2231, 1987).

¹³This ignores problems of discounting incomes across years, but the basic point holds in either case.

¹⁴By appropriate treatment of inheritances and bequests, it is possible to design a personal consumption tax, a tax on only C in equation (1), to satisfy horizontal equity across lifetime incomes.

and horizontal equity?

The revised tax code continues one major source of horizontal inequity and introduces a significant new feature. First, as in the past fringe benefits remain largely untaxed. As a result, the form in which compensation for services is paid matters. For example, suppose individual A receives a compensation of \$1,000 and purchases health insurance, life insurance, and a retirement annuity at a total cost of \$200. His taxable income is \$1,000 and he is consuming \$200 worth of present and future consumption. Individual B receives a direct compensation of only \$800, but is also rewarded with an identical set of insurance and retirement policies. This individual has taxable income of only \$800, but is able to consume the same \$200 worth of services and have a higher after tax income to use on other consumption. Comprehensive income taxation of the H-S type removes these types of inequities and reduces the wasteful exercise of restructuring compensation to reduce taxes. Politically, however, this seems infeasible. One feature of the 1984 United States Treasury proposal was taxation of fringe benefits. The conspicuous absence of this feature from TRA86 reflects the vociferous political opposition to the taxation of fringes.

A second horizontal inequity arises from the restriction of deductions for personal interest payments. Because consumer interest is no longer deductible, but mortgage interest remains deductible, homeowners have an incentive to borrow against their homes to purchase durable goods. The effect is to subsidize the interest costs of homeowners, but offer no equal subsidy to those individuals who rent.

On the other aspect of equity, one measure of the degree of vertical equity is the progressivity of the tax system. Define the average tax rate as total taxes effectively borne by an individual divided by pretax income. A tax system is described as progressive, neutral, or regressive as the average tax rate rises, remains unchanged, or falls with increases in income.

How will TRA86 affect the progressivity of the overall United States tax system? Analysis of the change in progressivity is complicated by the problem of distinguishing between the statutory and economic incidence of taxes. The statutory incidence of a tax is the legal obligation to remit the tax revenue to the government. In contrast, the economic incidence is the change in individuals' real income due to the tax. To see the difference, consider an excise tax of \$0.10 per cup of coffee which sellers of coffee are required to remit. Suppose that in the absence of the tax coffee sold for \$0.50, but after imposition of the tax the price of coffee rises to \$0.55. After remitting the tax, sellers net \$0.45. Here the statutory incidence of the tax is on the sellers, but the economic incidence of the \$0.10 tax is split between consumers (who pay \$0.05 more per coffee) and sellers (who net \$0.05 less per coffee). The key insight is that taxes change prices in the economy. It is the reaction of prices as deter-

mined by the nature of supply and demand for the goods or services which determines the economic incidence. To fully compute the incidence of a tax system requires a great deal of information concerning the structure of markets for goods and services.

For this reason, a complete analysis of the effects of TRA86 on the overall progressivity of the United States tax system is beyond the scope of this paper. Still, some pieces of the puzzle can be fit together. The most obvious impact on progressivity is the flattening of the statutory marginal tax rates. Other things equal, this makes the system less progressive. Still there are two changes in the other direction. First, the combined effects of the increased personal exemptions, standard deductions, and earned income tax credit (EITC) will remove many low income families from the tax code entirely. (A modest step for further reform would be to adjust the EITC for family size.) Second, in calculating the overall progressivity, the corporation income tax must be considered. The increased reliance on the corporate income tax for revenues will raise the effective rate of taxation on the income from capital. Since higher income families derive a greater share of income from capital, this tends to increase the progressivity of the system as a whole.¹⁵

IV. EFFICIENCY

This section discusses the effect of TRA86 on economic efficiency. Efficiency in this context refers to the effect of taxes on decisions for the allocation of goods and services. To see the efficiency effects on individual behavior, consider the following example. Suppose that each day a person buys a dozen muffins. A tax on muffins of \$1.00 per dozen is imposed and as a result he no longer buys any muffins; instead buying bagels. Notice that no tax revenue is collected, but nonetheless he is made worse off. In the absence of the tax, he had the option to buy bagels but preferred muffins. The presence of the tax has caused him to choose a less preferred item. Thus, by altering individuals' decisions taxes induce a loss above and beyond the simple payment of tax revenues. The efficiency cost or excess burden of the tax is the amount by which a person is worse off above and beyond the loss due to tax payments alone.

In the case of an income tax, the tax affects many aspects of household behavior: labor supply, savings, portfolio composition and so forth. Anyone who has rearranged a transaction on the basis of tax considerations has experienced the idea of an excess burden. Moreover, the degree to which individuals alter their behavior due to taxes depends on the level of the tax rate. It can be shown that the excess burden is extremely sensitive to tax rates, moving in proportion to the square of the tax rate. Put differently, doubling tax

¹⁵Pechman, *Who Paid the Taxes, 1966-85*, 1985 THE BROOKINGS INSTITUTION, examines the incidence of the U.S. tax system. His calculations indicate that progressivity is substantially affected by the degree to which capital income taxes are borne by the owners of capital.

rates *quadruples* the efficiency cost.¹⁶ For those individuals facing reduced marginal tax rates embodied in TRA86, the excess burden of the tax system will fall.

There is also an efficiency cost of taxation on business behavior. Suppose that there are two investments, each requiring an initial outlay of \$1000. Investment A yields \$80 in revenues and is sold at the end of the year for \$1100; a total return of 18%. Investment B yields \$50 in revenues and is also sold at the end of the year for \$1100; a total return of 15%. Since both projects are equally valuable at the end of the year and investment A produces more valuable output, investment A is socially more preferable. In the absence of taxes an individual or firm would choose investment A. Individual and social incentives coincide.

Suppose now that there is an income tax at a rate of 50%, but that only 40% of capital gains are taxed. Further, investment B receives depreciation allowances of \$50 and qualifies for an investment tax credit at a rate of 1%. The after tax return to investment A is now 12%, but investment B has an after tax yield of 13%.¹⁷ From the individual point of view, investment B now dominates investment A. However, from society's viewpoint investment A still yields more valuable output. Any tax induced switch from investment A to investment B costs society \$30 worth of goods and services.

What is the source of this loss? Define the effective tax rate on capital as the proportional difference between the pretax return to capital and the post-tax return to the owner of the capital. In this simple case, investment A has an effective tax rate of 33.3% and investment B an effective tax rate of only 13.3%. The effective tax rates differ from the statutory rates (50%) due to the effects of the tax treatment of capital gains, the role of depreciation allowances, and the investment tax credit. To the extent that otherwise identical projects deliver returns in different proportions of income and capital gains, the effective tax rates will differ. Similarly, those projects which receive relatively generous depreciation allowances or investment tax credits are more attractive. The differential tax treatment of otherwise identical capital investments causes losses to society due to the inappropriate allocation of investment funds. This misallocation is not the "fault" of the decision maker, it is the direct result of tax-induced incentives presented to individuals.

In the Internal Revenue Code of the United States, the sources of varia-

¹⁶See, e.g., H. ROSEN, PUBLIC FINANCE (1985). Intuitively the efficiency cost rises more quickly than the tax rate because initial units of consumption are more valuable than later ones. Thus, as the tax-inclusive price rises progressively more valuable units of consumption are given up.

¹⁷The calculations are as follows:

	Income	Taxable Capital Gains	Real Capital Gains	Taxes	Net Yield
A	\$80	\$40	\$100	\$60	\$120
B	\$50	\$60	\$100	\$20	\$130

Note: Project B has \$50 of depreciation allowances and qualifies for \$10 in investment tax credits.

tion in effective tax rates are just as in this simple example: differential treatment of returns in the form of capital gains, variations in depreciation schedules, and investment tax credits. These features are the components of many popular tax shelters. While individually advantageous, they have produced serious problems in the allocation of capital stock.

One of the major contributions of TRA86 is to equalize the effective tax rate on corporate capital across different types of assets — equipment, structures, inventories, etc. — and across industries in which these assets are held. Fullerton and Henderson estimate that the increase in efficiency of the allocation of capital resulting from a reform of this type is approximately 0.5% of the discounted value of the future sequence of income and leisure in the United States.¹⁸ Thus, despite the fact that the overall taxation of capital will rise under TRA86, the allocation of new assets within the corporate sector will reflect a more efficient organization of production.

A second improvement in this regard is the tax treatment of capital gains as ordinary income. No longer does the effective tax rate depend on the form — interest or dividend versus capital gain — in which returns are paid. Notice that capital gains are still tax sheltered because they are taxed only upon realization and thus accrue to the individual at the pretax rate of return. There has been some suggestion that a subsidy, which could take the form of favorable tax treatment, is needed to induce individuals to devote savings to relatively more risky projects in society. At this juncture, this seems unjustified. First, a subsidy is appropriate only if individuals undertake “too little” (from a social point of view) risky investment. Even if this case is made, a subsidy is corrective only if risk-taking responds to tax incentives. There is no theoretical prediction on either count and thus far little conclusive empirical research evidence either. Until a strong case is made, regular income treatment of capital gains is appropriate.

Still, there are reasons for a less rosy assessment. First, within the corporate sector, the elimination of the investment tax credit (ITC) results in an asymmetric treatment of investment in physical capital and investment in research and development. Because research and development (R&D) expenditures still qualify for tax credits, there will be an incentive to “transform” investment in plant and equipment into R&D expenditures. In the same vein, the elimination of the ITC makes new capital (without the subsidy) relatively expensive compared to old capital (which received the subsidy). At a time when there is a consensus that steps need to be taken to improve the competitiveness of United States manufacturing, this seems a perverse policy.

Next, the allocation of capital between the corporate and non-corporate

¹⁸D. FULLERTON & Y. HENDERSON, THE IMPACT ON FUNDAMENTAL TAX REFORM ON THE ALLOCATION OF RESOURCES (National Bureau of Economic Research Working Paper No. 1904, 1986) (does not directly examine TRA86).

sectors may be more important than the allocation within the corporate sector. In particular, the long-standing subsidy to owner-occupied housing has not only not been eliminated, it has been increased. As the “last tax shelter,” owner-occupied housing in the United States may grow at the expense of more productive investments elsewhere in the economy.

The final major efficiency issue is the role of taxes in determining the level, as opposed to allocation, of savings available for investment. To the extent that taxation of interest income has reduced the supply of savings, the United States has been left with an inefficiently small capital stock. Is this the case?

An important part of the answer is the fraction of total savings in instruments subject to tax. Put differently, most people have had access to tax shelter pension plans, life insurance, 401(k) plans, and IRAs. In each case, interest accumulates at the pretax rate of interest and no efficiency cost is induced by the personal income tax code. TRA86 changes the tax treatment of contributions to 401(k) plans and IRAs by altering the deductibility of these contributions. TRA86 reduces the maximum deductible contribution to a 401(k) plan to \$7,000 and reduces the deductibility of IRA contributions as incomes rise. Importantly, interest on these accounts is still untaxed until retirement. Thus, for a given *level* of savings, the tax system will not induce a distortion. Further, Hausman and Poterba conclude that it is easy to overemphasize the effect of the new restrictions on the level of personal savings.¹⁹ In sum, TRA86 does not carry adverse implications for personal saving.

SUMMARY

What should we think of the Tax Reform of 1986? Our latest round of tax reform has reaffirmed the role of income taxation in the United States revenue structure, has reduced the tax-based inefficiencies in the allocation of the capital stock, and has made significant improvements in the vertical equity of the tax system. On the other hand, tax reform has not “simplified” taxation, but has perpetuated some outstanding horizontal inequities and created a few new ones.

¹⁹J. Hausman & J. Poterba, *supra* note 4.

