Tax Reform or Tax Deform?

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Legislation to change the tax system—be it in the U.S. or anywhere else—is referred to fondly as tax reform. Reform, so Webster tells us, is an "amendment of what is defective, vicious, or depraved." So there is a question to begin with whether the tax structure as it exists exhibits these characteristics, so as to lend itself to reform. While I would not think it deprived or vicious, I readily grant that it is defective. But defects are a matter of degree and the system can get worse as well as better. Legislation may "misshape, disfigure, render displeasing," the terms provided by Webster for "deform." Having been asked to comment on tax prospects for the 80s, it may be prudent therefore to inquire whether these changes—and changes there will be—are going to be of the re or de-form variety. But this requires a point of calibration, i.e., the concept of a good tax structure. Without such a norm what constitutes tax reform, like what constitutes beauty, remains in the eyes of the beholder.

Analytical and empirical investigation into taxation effects are important. Taxes are what they turn out, not necessarily what they are meant to be. It is all to the good therefore, that the young generation, armed with indirect utility functions and computer outlets in their kitchens, if as yet limited observations, should set out to measure these effects. But to evaluate the outcome for purposes of policy, we have to know first what the good tax structure should accomplish, and what it should look like. Adam Smith was well aware of this when, at the beginning of his chapters on taxation, he presented the four norms of a good structure—equity, certainty, convenience and efficiency. Put in terms of his broad rules, we can all agree with him on what constitutes a good tax: "The subjects of every state ought to contribute towards the support of government," so he says, "as nearly as possible in proportion to their respective ability, that is in proportion to the revenue which they respectively enjoy under the protection of the state." It is not quite clear just what this dictum implies—whether it calls for benefit or ability taxation, and how the two are related to a person's revenue; but his insistence that the tax structure should be equitable was and remains surely correct. Adam Smith, after all, not only wrote The Wealth of Nations, but also, and first, The Theory of Moral Sentiments. Concern with tax equity has become even more important in the democratic setting of today. A popular sense that the tax structure is reasonably equitable is a prerequisite to a sound social structure and the functioning of democracy. Of course, this is not the entire story. "Every tax," as Smith continues, "ought to be so contrived as both to take out and keep out of the pockets as little as possible, over and above what it brings into the public treasury of the state." I doubt whether this should be interpreted as the origin of optimal taxation theory, but it is certainly compatible with the
emphasis given in recent tax research. The tax system, in short, must be both equitable and efficient. So far so good, but consensus turns out as we move to tighter specifications of the rules.

**Horizontal Equity**

I begin with the requirements of horizontal equity, not only because it has always been a major interest of mine but also because it is among the most fundamental concepts in tax structure design, especially in the modern economy with its complex institutional structure and thousands of ways in which income can be received and used. Horizontal equity may be said to precede the issue of vertical equity. Vertical equity deals with the distribution of income, but to discuss distribution, we have to decide first what it is that is being distributed. Concern with horizontal equity involves two propositions. One is that tax burdens are borne by people, not things or legal entities. All tax burdens must therefore be traced to people, and the systems must be judged in terms of how they are borne. From this, it follows that horizontal equity is a desideratum in income taxation.

One of the great problems in this field is that there are different ways to tax income, and the methods vary widely. But one thing is certain: the tax system must be fair. It must be fair in the sense that the tax burden should be borne equitably. This means that people in equal positions should be treated alike. There should be no discrimination, be it by accident or by design. As a general rule of fairness this is an unquestionable requirement; reasonable people may differ on whether taxes should be progressive, or by how much; but they agree on the principle of equal treatment. But it is not obvious how equal treatment should be interpreted, i.e., how the index of equality should be defined. My generation of public finance economists took it as axiomatic that equality is to be defined in terms of income which, in the Henry Simons tradition, means accretion. We also accepted as axiomatic that people with equal accretion should pay the same amount of tax. Now the first of these two propositions has ceased to be self-evident, and the second is in need of amendment.

I begin with the concept of income as index of equality, celebrated so magnificently, and I hope not for the last time, in Canada’s Carter Commission report of some fifteen years ago. While there had always been rumblings, from John Stuart Mill to Irving Fisher that the inclusion of interest constitutes “double taxation,” it is only recently that the consumption base has emerged as a serious rival. With the consumption base viewed in the context of a personal expenditure rather than a salary or wage, the old objection on vertical equity grounds no longer applies. The consumption as well as the income base may be adjusted to the taxpayer’s personal circumstances and progressive rates may be applied. But this has not been the focal point of recent advocacy of the consumption base. This argument, rather, has been based on the hypothesis that the expenditure tax is more efficient. This outcome follows if leisure is fixed but, as pointed out long ago by Little, there is no prior presumption in favor of the consumption base if leisure is variable. The outcome then depends on the triangular substitutability between leisure, present and future consumption. It also depends on the comparative levels of marginal rates that may be required (a) to obtain the same revenue and (b) to do so with similar distributive outcomes.

I prefer to take a different tack and to compare the merits of the two bases in terms of vertical equity. I realize that horizontal equity is difficult to define precisely in a world where preferences among individuals differ. However, some formulation has to be accepted and I begin with the proposition that people with equal options should be treated equally. Since the purpose of income is potential consumption, it is reasonable moreover to measure options as present value of potential consumption. Given a long list of idealized conditions, it appears that a good case can be made for the consumption base. These conditions, however, are rather stringent. They include lifetime taxation, perfect foresight, perfect capital markets, disregard of the sizeable transition problem and, very important, inclusion of gifts and bequests in the consumption base. These conditions, of course, do not prevail, and without them, ranking of the two bases is by no means evident.

Moreover, it is a mistake to compare a perfect expenditure tax with an imperfect income tax. The expenditure base, to be sure, bypasses some of the central difficulties of the income tax, especially the problems associated with capital gains and depreciation, problems which have become especially severe with inflation. But an expenditure tax would also pose new problems as yet unknown, and the difficulties of transition would be substantial. Nevertheless, the issue is sufficiently open so that I am prepared to rate experimentation with a personalized expenditure tax as potential reform.

I must, however, draw a sharp distinction between (1) replacing part of the income tax by a bona fide expenditure tax and (2) substituting the income tax by going easy on income components which are saved. While there is little prospect that the theorist’s vision of a pure expenditure tax will be realized in the foreseeable future, its misguided advocacy may well generate side effects which will only weaken the income tax. After all, so goes the siren song, if we ought to tax consumption and not income, why not begin with having the income tax go easy on income components which are not consumed? Is this not more plausible since the income tax already is more effective in reaching wage than capital income, so that we might as well move further in that direction? Tax reformers, like Odysseus when passing the isle of the Scylla, should lash themselves to the mast of reform, lest they yield to temptation and be left with the worst of both worlds, an income tax on wage income only, without there being an alternative personal tax on gross consumption. Maintenance or better, strengthening of base globality, is an essential condition for reform. This at least follows if one takes the view—and I suppose that most (though a declining fraction of) observers still do—that the major direct tax in the system should be progressive, if only to offset regressivity in the remainder of the system. Thus, as long as major reliance is placed on the income tax, tax reform calls for reordering the base more, not less, comprehensive. This includes our traditional quests for full taxation of capital gains, imputed rent, tax exempt interests, pension plans, corporate tax integration and so forth. Politicians may not like this, but true tax reformers should. They may, at the same time, plead for partial replacement of income tax revenue by an expenditure tax, but only in a package which contains a bona fide expenditure tax along with a broad based income tax, not via deformed of the income tax. This, I think, is my main message to the tax reformers of the 80s.

A word might be added on whether the expenditure tax scheme calls for being supplemented by a wealth tax. I think not. Taxing wealth is more or less equivalent to taxing capital income; and if consumption is chosen as the base, then a supplementary tax on capital income is out of order. Taxation of wealth might remain appropriate, not in the context of tax equity but in response to concern with the social implications of excessive concentration of wealth and power that go with it. But such a tax would be a progressive tax on gross wealth rather than a tax on net wealth and might be added to
either an income or an expenditure tax approach.

I now turn to the second axiom, underlying the traditional view of horizontal equity, i.e., the rule that people with equal global income should pay the same amount of tax. Income from all sources should be combined and treated alike. This is the argument for uniformity on which we all used to agree. But we must now recognize that equal treatment and equal amount of tax are not the same. A person's tax burden, after all, includes not only the dollars of tax paid, but also the dead weight loss due to not paying. As more recent taxation theory stresses, the triangle as well as the rectangle should be counted. If equal rate taxation of different sources of earnings generates different efficiency cost, people with equal total incomes but different earnings sources may incur different burdens if they pay the same amounts. To equalize burden, people with equal incomes should not necessarily pay the same amount of tax. Rather, a person's liability should be a function of both the income total and its composition. This note does not call for moving, so non-global and separate taxation of various income sources, i.e., the old schedular approach. Nor would it be the same as taxing so as to minimize aggregate dead weight loss. Rather, it would set liabilities so as to equate the economic losses suffered by various taxpayers. Similar considerations would apply to the taxation of various types of outlays under a global expenditure tax. While I want to amend the traditional concept of horizontal equity in this fashion, I confess that I do not see how a multidimensional rate structure of this sort could be designed and implemented. I have focused on these issues of horizontal equity because they have been central to the tax structure thinking of my generation of tax economists and rightly so. I must therefore take note of the contrary view that horizontal equity matters little. Horizontal inequities, once imbedded in the system, cease to be such, so the argument goes, because differential burdens have become capitalized. This has for long been noted with regard to the integration of the corporation income tax. Present owners have paid the capitalized price, so that they no longer benefit and would indeed be penalized by their removal. But the argument has been expanded and given new emphasis in recent discussion. Not only are differential rates on capital income capitalized, but it has been noted that workers who may choose employment in industry or service, or consumers who may consider consumption of product or be, may allow for tax differentials in their choice. Since they have equal options to choose, no horizontal inequities can result. Horizontal inequities, however, become greater as the tax rate base expands. Finally, if there are difficulties in adjusting a nominal tax system for inflation, they can be handled and failure to address them seriously has done much damage. Tax reform calls for inflation adjustment to the largest possible degree. This should be evident especially to those who favor strengthening of the income tax, since greater immunity to distortion by inflation is a main advantage of the expenditure tax approach.

As to inflation, there can be no doubt about what the principles of equitable taxation demand. The very concept of horizontal equity requires that we define the index of equality in real terms. Capital gains should be taxed fully but they should be adjusted for inflation. The depreciation base should be adjusted to allow for changes in the price level, meaning (in the context of a tax philosophic which calls for integration) the cost of living rather than replacement cost. The inflation component of interest income should not be taxed, and decline in the real value of net indebtedness should be treated as accrual and not taxed. Rate brackets should be indexed so as to maintain the intended relationship between effective rates and real income, requiring legislators to enact rate increases if they so desire, rather than to enjoy a free ride via bracket creep. While there are difficulties in adjusting a nominal tax system for inflation, they can be handled and failure to address them seriously has done much damage. Tax reform calls for inflation adjustment to the largest possible degree. This should be evident especially to those who favor strengthening of the income tax, since greater immunity to distortion by inflation is a main advantage of the expenditure tax approach.

Efficiency

I now turn to the efficiency side of tax reform. In the U.S. but also in Europe, the U.K. and Canada, this particular issue is now in the forefront of academic interest. If there were no other concerns but efficiency, the budget should be financed by a lump sum tax, be it a head tax or a lottery. Then there would be zero efficiency cost. This would satisfy some economists but not Adam Smith, or, for that matter, any one else whose life horizon extends beyond Pareto optimality. Clearly a lump sum system would be intolerable on equity grounds. Moreover, it would perform badly in deriving a meaningful pattern of expenditure determination through the voting process. The ideal solution of potential income is not an operational tax base, so that tax schedules have to be related to economic activity. Therefore, efficiency costs are inevitable. This, of course, does not mean that there should be no taxation. It only means that public services and redistribution are costlier than might appear.

Tax reform accordingly is defined most clearly by measures which save on efficiency cost without hurting equity or, even better, while improving it. We may think of a "production possibility frontier" with efficiency costs avoided on one, and equity achieved on the other axis. Tax reform then moves the system northeast, towards the frontier. It is the task of our profession to show where such moves can be made. There are many possibilities. Indeed, most of the standard proposals for broadening the income tax base equally. Removal of homeowner preferences, tax exempts, corporate tax integration, accrual taxation of capital gains, are all cases in point. But the two goals may also diverge. Thus efficiency begins with the taxation of income sources least elastic in supply, i.e., natural resource and then moves down to more elastic sources, so as to minimize the total efficiency cost by equalizing excess burdens at the margin of the various bases. This formula leaves people in equal positions with unequal burdens. While we have noted that equal treatment should allow for deadweight loss, it does not call for minimizing total efficiency cost. Consider, for instance, the case for lighter taxation of secondary earners whose labor supply is more elastic. In equity terms, somewhat lower rates may be appropriate because the deadweight loss suffered by secondary earners per dollar of tax is larger. But efficiency considerations might go much further and call for near
exclusive taxation of primary earners, thereby interfering with equitable treatment of the family unit.

The potential conflict becomes more severe as considerations of vertical equity are added. Assuming vertical equity, i.e., the shape of the social welfare function, as society sees it, to imply progressive taxation, an excess of marginal over average rates and hence an increased efficiency loss is unavoidable. Given this fact, when are marginal rates too high? The answer depends on the shape of the social welfare function. Three situations may be distinguished. First, suppose that the community wishes to follow the Rawlsian rule of maxi-min. In this case, marginal rates should be pushed to the point of maximum revenue. Deadweight losses suffered above the "lowest" do not matter. Second, suppose that the community wishes to assign decreasing social values to the marginal utility of income when moving up the income scale so that downward redistribution is called for, but losses incurred at the upper end are nevertheless counted. In this case, the proper marginal rate will be below that of the first case. Thirdly, suppose that the community is concerned with the absolute level of incomes at the lower end of the scale, but rather with the state of distribution, e.g., the Gini coefficient. In this view, the "proper" marginal rates may well exceed those if the first case. Assuming that the second formulation reflects community sentiment, rates should fall short of the maximum levels called for in the first version. Postwar revision of such rates, if they exist, is clearly a matter of reform. Some recent estimates suggest this to be the case, although the underlying data fall short of being convincing.

Now it might be argued that concern with vertical equity has been overdone in the tax discussion. Would it not be better to relegate distributional adjustments to the expenditure side of the budget, given that this is where the more significant changes in distribution do in fact originate? The argument sounds appealing but it is fallacious. What matters is the distributional impact of net fiscal burdens and benefits, and for a given net impact, excess burdens will be the same whether they are built into the tax or the transfer side of the fiscal process. What is needed rather is a view of reform in terms of net fiscal or budgetary rather than tax terms only.

However this may be, constructing the frontier of feasible efficiency and equity goals is only the first step. As in the usual context of welfare economics, there remains the further question of choosing among points thereon. Society must consider a tradeoff between efficiency and equity, and here headquarters of economists if they are ever considered such—will differ. What constitutes re or de reform then depends on how the two "goods," efficiency and equity, are valued. In an imperfect world, tax reform may even lead to a point away from the frontier, if movement along it is not feasible. While my generation of tax economists has placed much emphasis on equity aspects, the younger generation is now stressing efficiency. This change in emphasis may be a Hegelian way of compensating for what came before, thus adding to the course of Science. But it may also reflect the fact that efficiency considerations are more amenable to the exercise of technical tools, a practice which brings rewards to the young professional, but need not be most helpful for the substance of analysis. The shift in emphasis also reflects changes in social values which now, as in past history, have been a major factor in the course of taxation theory.

While academics are concerned with efficiency cost, the more popular version of the argument takes the form of concern with tax reform's effects on overall economic growth. In the case of capital taxation, the two are said to coincide in the proposition that the taxation of capital income does in fact hold capital formation to a sub-optimal level. In part this returns us to the case for a consumption base. But capital income is said to be greatly overtaxed—even in the context of an income tax approach. Thus tax reform tends to be equated with reduced taxation of capital income. Is this so, and what form should the adjustment take? U.S. capital income for 1979 (defined broadly but net of corporation tax) is estimated at $305 billion. With Federal income tax paid thereon of $31 billion, this gives an average rate of only 10 percent, considerably below the 35 percent (including payroll tax) paid by wage income. But if the corporation tax of $78 billion is included, the tax becomes $119 billion and (including the corporation tax in the base) the average rate rises to 30 percent. Including State income and corporation taxes as well as the property tax, the ratio moves to about 50 percent. This average rate in turn is surrounded by marginal rates on particular types of capital income ranging from negative to over 80 percent. The main problem, it seems, is not the average tax rate, but the irrational and arbitrary way in which the revenue is obtained.

Implementation of a broad based income tax, including integration and inflation adjustments would go far to free capital to seek its place in investment without distortion by tax preferences. Moreover, it would improve the equity of the system. I consider this the No. 1 item on the reform of capital income taxation. Given such reform, capital income on the average would still be taxed at a higher rate than wage income, but this would only be an appropriate reflection of the fact that capital income accrues more largely to the higher brackets. Now it may be that all this is not enough.

Considerations of public policy may call for special inducements to economic growth. Ideally these would be given through direct subsidies rather than tax relief, but no one likes to be subsidized outright. Tax incentives are here to stay and the tax reformer cannot simply act as keeper of the grill. He must be prepared to make concessions, but should demand that they be made at minimum damage to the tax structure. The objective is not simply to obtain the largest bang for the buck, but also to preserve tax equity, both horizontal and vertical. There is the simple fact that the distribution of capital income is much more unequal than that of wage income, so that considerations of vertical equity here a high stake in the debate. Given this distribution of capital income and the location of investment decisions in the income scale, an argument for growth incentives easily doubles as a device to shift the tax burden towards the lower end of the scale. In short, it matters a great deal to tax reform how growth incentives are to be designed. If they can be designed to neutralize or at least weaken distributional side effects, the much the better. For this purpose there should be greater concern for using incentives at the lower and middle ranges of the income scale, as for instance, through refundable taxes or devices to direct wage increments into reinvestment via profit participation. We have done very little to think of new and unconventional approaches to this problem.

To summarize: Tax changes are just as likely to involve reform as reform, and it is our function, an ??? of taxation, to hold the line for reform. Reform requires some consensus on the norm of a good tax structure. These norms, over a substantial range, are such that most of us can agree. Over this range the distinctions between reform and deform can be drawn clearly. Beyond it, various proposals may conflict so that tradeoffs are required. Here preferences may differ among the

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6See Eugene Stigler, Office of Tax Analysis, U.S. Treasury Department, page 42, October 1940.
experts as among ordinary mortals. Conflicts have to be resolved through a democratic process. People’s rates of substitution between equity and efficiency may differ, but as with social goods they should add to the marginal rate of transformation, as given by our possibility frontier. In short, the public sector must not only provide social goods and render distributional adjustments, but the way in which it does this—the quality of the tax structure—is itself a social good of prime importance.

This indeed adds another aspect of tax reform, an aspect which did not appear among Adam Smith’s maxims and which is frequently overlooked. This is the Wicksellian role of tax setting in determining expenditure choice. Tax reform calls for changes which render the citizens aware of the opportunity cost of public services and permit him to contribute in line with their evaluation. Taxes should be determined in conjunction with the expenditure side of the budget. True tax reform thus becomes budgetary reform, but this is another theme which I will not impose on you. I regret not having offered you a lighter and more entertaining after-dinner fare. Listening to myself, it seemed like going back to grits after the ice cream, and it did so even though I found myself in agreement with most of what I had to say. Double apologies to those of you who did not.

THE NET DEMAND FOR PUBLIC GOODS

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The tendency of private markets to provide less than optimal quantities of public goods is well documented. The characteristic of joint consumption and the associated problem of exclusion combine to cause individuals, acting independently, to buy too little of such a good. Buchanan has shown how public goods are provided in a market setting under the assumption of wholly independent behavior on the part of the participants. Assuming a world of equals (tastes, productive capacities) and constant costs, Buchanan demonstrates how the final independent adjustment equilibrium is nonoptimal in the Pareto sense, the public good being underprovided and the private good being overprovided. The Cournot duopoly model follows a similar analysis and arrives at a similar conclusion by showing how an oligopolistic industry will underprovide a good with respect to the competitive equilibrium output. Both the Buchanan equilibrium and the Cournot equilibrium assume wholly independent, non-strategic behavior on the part of the participants and the analysis in both cases centers on the production of goods.

This paper, while maintaining the assumption of independence and non-strategic behavior, will concentrate on the demand side of the equation and show how private “net” demand curves for public goods are derived. It will be shown how variations in price affect the quantity demanded of a public good and how private demand results in the good being underprovided.

The Model

Assume a situation in which two persons, A & B, act independently in the consumption of two goods, one public and one private. Each individual considers both goods to be private and hence does not recognize the interdependencies associated with the provision of the public good. The assumption of wholly independent behavior implies that A is unaware that his consumption of the public good will affect B’s demand for it; the publicness of the one good remains hidden from both A & B. This eliminates the possibility of strategic behavior. While limiting the model’s applicability in the real world this approach (similar to that of the Buchanan and Cournot models) provides a framework on which a model incorporating strategic behavior can be developed. Further assumptions include equal tastes,

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