

# THE (APPARENT) DEMISE OF SALES TAX DEDUCTIBILITY: ISSUES FOR ANALYSIS AND POLICY\*\*

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## I. Introduction

EVERYONE is familiar with the old saying that nothing in life is certain except death and taxes. Perhaps the time has come, however, to revise this saying. It certainly remains true that taxes will be around for a long time to come. But exactly *which* taxes will be with us, and exactly how much tax any particular individual will have to pay at some given time in the future, is anything but certain. In this era of constant change in the tax law, who can say what taxes the future will bring? Thus, a case could be made that the old saying should be changed to read that nothing in life is certain but death and tax *reform*.

Tax analysts have reason to be pleased with this state of affairs. As the tax structure changes from year to year, one encounters an endlessly varying landscape of actual and proposed policy issues to investigate. Dissertation topics for doctoral students abound. Journal articles proliferate. Those who are in the business of offering tax advice and tax preparation services find their clients hopelessly confused and eager for help. Textbook writers have a convenient way to undercut the used book market, that bane of second and third year sales, by revising their books to reflect the latest tax law, thus rendering previous editions obsolete—at least if they have the patience to undertake this somewhat painful chore.

As an added bonus, it sometimes happens that all of this research and study actually seems to have a payoff in terms of affecting the actual policy reform process. This is not to say that the tax law that finally emerges from the political process embodies a consistent application of the viewpoint espoused by any particular analyst or commentator on tax policy issues. That would indeed be too much to

expect. However, the debate about tax reform does occasionally draw on one or another of the main currents of thought in the literature of public finance. Lately I have asked my students to read selections from the US Treasury's *Blueprints for Basic Tax Reform* of 1977, from its *1984 Tax Reform for Fairness, Simplicity, and Economic Growth*, and from the *President's Tax Proposals* of 1985.<sup>1</sup> When (and if) they do so, they can see a family resemblance between the ideas embodied in some of the major proposals for tax reform that have been put forward from the executive branch over the years and the principles that they have been asked to learn about, at the cost of considerable mental anguish, in their texts and lectures. This convinces them, or at least so I imagine, that they are not merely studying abstract, esoteric ideas with no possible relevance to real-world policy problems.

Of course, as tax proposals are subjected to the inevitable pushes and pulls of the political process, they are sometimes transfigured in unexpected ways, and the law that eventually emerges from this process need not always bear a close similarity to the proposals that were fed into it at the outset. Such is the case with the issue that I will discuss here, that is, the deductibility of state and local taxes.

This is one of those issues that has been discussed frequently over the years by public finance economists. Two competing views seem to have evolved on the subject.<sup>2</sup> According to one view, essentially all state and local taxes should qualify as deductible expenses at the Federal level, while according to the other view essentially no such taxes should be deductible. The main arguments for and against these competing views basically revolve around the problem of measurement of ability to pay, around the assessment of the distributional implications of deductibility across jurisdictions, and

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around the issue of whether a general stimulus to state and local government public expenditure is desirable or not.

Those who believe that deductibility is necessary in order to arrive at a correct measure of a household's ability to pay tend to see lower-level governments as exercising a kind of prior claim on the resources of a taxpayer, and would argue that only the income that is left over after these taxes are taken away really represents resources at the disposal of the taxpayer that can properly be included in ability to pay. The opposing view is that the expenditure of real income to purchase goods and services provided through the state or local public sector is simply a different way of using up one's economic resources. The fact that these resources happen to be spent in the form of taxation does not change the essential nature of the transaction, nor does it justify Federal tax deductibility any more than would be true for expenditures of resources on privately-provided goods and services. Aside from the ability to pay question, there is some discussion about the distributional impact of deductibility. Opponents of deductibility point out that it subsidizes wealthy individuals (who tend to itemize deductions and who face high marginal tax rates) and wealthy jurisdictions. Against this, those favoring deductibility sometimes argue either that there is general underprovision of state and local public services, or at least that spending is too low in certain important categories of state and local expenditure and that this spending is likely to respond to the general implicit subsidies that deductibility offers. It is also argued that deductibility dulls the fiscal incentives for households to stratify into income-homogeneous communities, and that this is beneficial either in its own right or because the presence of high-income individuals in a jurisdiction containing significant numbers of the poor, and the low effective price for public services that deductibility implies for the rich, increases the equilibrium level of public services that help those in need.<sup>3</sup>

For present purposes, it is not necessary to reach a definitive judgement about which of these alternative views of state and local tax deductibility is correct or

preferred. What is important is to note that there is an internal consistency in each view. In particular, neither of these approaches suggests, in any obvious way, that it is appropriate to allow deductibility of selected state or local taxes and to deny deductibility of others. As it happens, of course, selective deductibility is what the tax reform process has delivered, in allowing continued deductions for property taxes (which are crucially important for local governments) and for personal income taxes (very important revenue sources for the state governments), while disallowing deductions for sales taxes (another very important state revenue source). To the best of my knowledge, there is no set of consistent public finance principles that could be used to justify this particular policy, except possibly as one outcome that might occur for some very special and fortuitous configuration of empirical parameters, or under some particular specification of added constraints that might yield this as a second best policy. Certainly the major recent proposals emanating from the executive branch never suggested a policy of selective deductibility. Indeed, Treasury I and the *President's Tax Proposals* both called for complete elimination of the deductibility of all state and local taxes.<sup>4</sup>

Confronted with this lack of consistency or coherence in current tax policy, one's initial response might be to say "so much the worse for consistency." It is arguable, however, that Federal tax policy has still not settled down at a semi-long-run equilibrium, and that further tax "reform," or at least tax policy change, lies ahead. If so, the question of state-local tax deductibility may be reconsidered. The absence of a strong rationale for existing policy will only make it easier for policy revision to occur. Depending on the way the political winds are blowing, one could imagine on the one hand a repeal of all state and local tax deductions by a Congress and Administration looking for ways to raise further revenue without raising marginal rates, and, on the other hand, a reinstatement of sales tax deductibility by a Congress and Administration eager to provide more Federal support for state and local public spending. It is thus not ob-

vious that sales tax deduction is gone for good (hence the use of "apparent" in the paper's title), nor is it obvious that other state and local tax deductions are here to stay. This prospective impermanence of Federal tax policy, that is, the near-permanence of the process of tax reform, is going to complicate life for analysts of the interaction between Federal, state, and local government fiscal policy, with implications that I touch upon at the end. For the moment, however, I follow accepted practice and ignore this problem, assuming instead that we can treat Federal tax policy, such as the repeal of the sales tax deduction, as permanent but unanticipated shocks to which all agents react without significant delay.

I am particularly interested here in how the repeal of sales tax deductibility is likely to affect state and local government policy. There are several dimensions to this question that require consideration. First, and perhaps most obviously, one should ask how repeal affects the *mix* among state revenue sources. Second, and almost equally obviously, one should ask how repeal affects the public expenditure decisions of states. Third, and perhaps least obviously, I will argue that the proper or relevant answers to the first two questions should take into account some of the other aspects of the recent reform, including in particular the change in the Federal rate structure, the projected reduction in the number of itemizers, and the fact that state and local income and property taxes remain deductible. This will also be important for the overall evaluation of the equity and efficiency effects of the repeal and accompanying reforms. Section II abstracts from the other changes in Federal tax policy and focusses on the repeal of the sales tax deduction alone, while Section III takes a more comprehensive view of the repeal of the sales tax deduction within the overall context of the recent tax reform.

## II. Some Effects of Sales Tax Deductibility in a Stable Federal Tax Regime

To analyze how repeal of sales tax deductibility will affect state tax and ex-

penditure policy, we must first formulate a model or theory about how state tax structures are determined. This theory need not be recognized as such, and can be left in a highly implicit form. Alternatively, one can try to be more explicit and spell out the essential structural framework and key assumptions that underlie the model. When one is discussing something as complex as the way that governments make decisions on tax and expenditure policies, it is evident that a good deal of simplification is going to be necessary to make any headway at all. I propose to begin on the relatively explicit end of the spectrum, by discussing what is probably the simplest possible model of government behavior. This is the model that aggregates all of the diverse households within a given jurisdiction, such as a state, into a single representative household which is assumed to control policy within the jurisdiction.<sup>5</sup>

Certain of the results that can be derived within the framework of such a model are not, perhaps, entirely obvious. After mentioning some of these, I will proceed in a somewhat more speculative vein to explore, even if only informally, some further issues that cannot really be handled within the representative agent model.

The standard specification of the type of model that I have in mind here is one in which a typical or aggregate household controls the level of public expenditure in the jurisdiction, and faces a government budget constraint which requires that revenues be raised through various tax and other sources to cover the cost of whatever public expenditure is undertaken. One also supposes that this representative agent chooses the tax structure as well, deciding how much revenue is to be collected from the various taxes that are potentially available within the jurisdiction. Ordinarily, this type of choice problem is solved by selecting an optimal mix of different taxes. This might involve using not only sales taxes and income taxes, but also severance taxes, corporation taxes, user fees and charges, etc.<sup>6</sup>

What would guide the jurisdiction in making its tradeoff among these alternative sources? In this model, the key

consideration is what one might call the "local marginal cost of public funds" raised from different revenue sources. This really reflects the marginal deadweight welfare loss accruing to the representative household per dollar of revenue raised. For an arbitrarily-specified tax structure, this local marginal cost would vary from one revenue source to another. For some sources, it might be high because the tax base in question is very elastic, or just because the tax wedge for that base happens to be quite large. For another source, it might be low because the base is inelastic. It might also be low because a significant part of a marginal dollar of revenue is shifted outside the jurisdiction through tax exporting (Zimmerman [1983]). This tax exporting might occur because of some special monopoly power that the state has, as is often argued with respect to the taxation of energy resources by resource-rich states, for example. More relevant for present purposes, it might also occur through the Federal income tax deductibility of the tax in question. However, while the local marginal cost of public funds can in principle vary across different revenue sources, the model predicts that all such differentials will be eliminated in equilibrium. The reason for this, essentially, is that the representative agent will wish to raise whatever amount of revenue is required in the least-cost fashion, and this will entail adjusting the amount of revenue raised from different sources until the marginal welfare cost per dollar of revenue raised is equal for all revenue bases.

Now, within the context of this model, what would be the impact of the elimination of sales tax deductibility? To begin with, one would expect to see the jurisdiction in question substitute other revenue sources for the sales tax because the marginal cost of raising funds from this source will have increased as a result of the elimination of deductibility. This is certainly an unsurprising conclusion, conforming well with intuition. (Indeed, this model probably *is* the intuition that underlies much of that part of the policy discussion and empirical work on this subject in which explicitly-specified the-

oretical models do not appear.) The model also suggests that the extra revenues to be made up from other sources are not likely to be drawn from a single alternative revenue source. Rather, one would expect to see somewhat increased reliance on a variety of other taxes, charges, and so on. The quantitative degree to which states substitute away from sales taxes, and the exact mix of their incremental financing, would depend on how sharply the local marginal cost of funds from each revenue source is rising. Conceivably, almost all of the tax substitution could be in the direction of state income taxes, or in the direction of user charges, but there is no obvious reason why either of these polar extremes should occur. On the other hand, it would be extremely difficult empirically to break down how much extra revenue will come from each of these revenue sources, not to mention other taxes. Note, however, that the equity and efficiency effects of the repeal of sales tax deductibility depend quite critically on the nature of this response. What this means, unfortunately, is that we are on shaky ground in trying to trace through the economic implications of the repeal of sales tax deductibility in one of its potentially most important areas of impact.

If it is difficult to predict the response of states in adjusting their revenue mix after repeal of sales tax deductibility, it is perhaps even more difficult to determine what their expenditure response would be. One might presume that the removal of the implicit subsidy from the Federal government would put downward pressure on public expenditure by the states, perhaps especially those that rely heavily on sales taxes. Although this seems quite intuitively plausible, it is not a necessary implication of our simple model. Recall that, in equilibrium, the local marginal cost of public funds would be equated across all revenue sources. If the jurisdiction is also a welfare maximizer in choosing its level of public expenditure, then in equilibrium it will balance this local marginal cost of public funds against the marginal benefit of public goods and services. Although repeal of sales tax de-

ductibility raises the local marginal cost of funds raised via sales taxation, it need not have the same impact on the local marginal cost of public funds raised from other sources, and if it does not, there is no reason to expect to see reductions in spending levels.

This point may be made clear by an analogy. Imagine a consumer living in a region where Florida oranges have the biggest share of the local orange market, but where California oranges are available, or at least potentially available, at nearly the same price. For such a consumer, the price of Florida oranges would appear to be the operative marginal cost against which the benefits of consuming oranges must be weighed. Now suppose that a tax is imposed on Florida oranges. If California oranges can easily be brought in at almost no premium above the old price of Florida oranges, the consumer will simply shift from Florida to California oranges with almost no reduction in the amount of oranges consumed. By the same token, if states that rely heavily on the sales tax could just as well shift over to using income taxes, and if the increase in the local marginal cost of public funds entailed in doing this is minimal, then we would expect to see almost no reduction in public expenditures by these states.<sup>7</sup> In short, to predict the effect of the repeal of sales tax deductibility on public spending, we need to know how this affects the marginal cost of raising revenue from all other taxes and charges. To know this is to know about how the marginal deadweight loss from these taxes varies with the level of revenue raised. We are a long way from having good information on this subject. As a rough conjecture, one might hypothesize to begin with that sales taxes, income taxes, and other taxes and charges are relatively good substitutes as revenue sources for most states (since all are widely used, but in varying proportions across states). If so, one should not expect to see a large effect on state government spending as a result of the loss of sales tax deductibility as states will simply adjust by replacing one revenue source with others that are nearly as good. I hasten to add that this is only a rough conjecture, be-

cause it neglects various other effects that I will discuss below.

### III. Elimination of the Sales Tax Deduction in the Context of Overall Tax Reform

So far we have focussed on the effect of eliminating the sales tax deduction without considering other changes that have occurred simultaneously in the recent tax reform. This neglects a number of important points.

First, note that marginal rates for high income taxpayers are falling, and that the number of itemizers is expected to diminish. When we try to address the implications of these facts, we must perforce leave behind the simple model of a single representative consumer. This means that we are skating on much thinner analytical ice, since proper modelling of the determination of policy in a multi-agent environment is much harder. Nevertheless, it is useful to speculate on the possibilities.

Consider, for example, the issue of progressivity of state income taxation. There are various reasons why states might put limits on top-end marginal rates. There may be concern about rising excess burdens, or about fiscally-induced migration by the rich, or simply increased political resistance by the rich as these rates rise. Whichever of these constraints may be operative, they are likely to become more binding in the face of lower marginal Federal tax rates. Take, for instance, the migration decision. Imagine a very high income household receiving, say, \$200,000 of taxable annual income. The marginal Federal income tax rate facing this household in 1987 was 50 percent, and in 1988 this rate will fall to 28 percent. How much more sensitive is this household going to be to interstate differentials in state income tax rates? Consider a differential of 1 percent. This entails paying an extra \$2000 annually in state income taxes. With a 50 percent Federal tax rate, this is reduced to an effective differential of only \$1000 per year, but with the new lower rate it will amount to \$1440, that is, an increase of \$440, or 44 percent. This

increase in the annual differential of \$440 is 0.22 percent of before-tax income. Discounting at 10 percent, this differential, if sustained in perpetuity, has a present value of \$4400.

Will increases in effective tax rate differentials of this magnitude have a significant effect on locational decisions? If the tax rate differentials are large, it could be important. For example, the rate differential between New Hampshire and Massachusetts is basically 5 percent.<sup>8</sup> In present value terms, that 5 percent differential is now \$22,000 more in New Hampshire's favor than it used to be, or, in terms of annual income, 1.1 percent. If the choice is between New York (state) and Connecticut, the tax rate differential on the marginal dollar of earned income is 8.5 percent, with a smaller differential for capital income. The reduction in marginal rates at the Federal level raises the effective differential from as much as 4.25 percent to 6.12 percent, that is, 1.87 percent of annual income or about \$35,000 in present value terms. If this rich household happens to live in New York City, the effective differential is increased still further in view of the city income tax at rates up to 4.1 percent—roughly by half again as much. Note that these figures are not the size of the tax differentials themselves, but merely the *change* in the size of the differentials that occurred as a result of the lowering of the Federal marginal rates. Although these effects are not overwhelmingly large, neither do they seem entirely trivial.

These illustrative figures suggest that states may now be a bit more reluctant to impose high tax burdens on their high-income residents. They may tend to reduce whatever progressivity there might be in the rate structure. They may also try to move away from income taxation toward other revenue sources that are less onerous for the rich. Examples of this might be charges and fees, or perhaps even sales taxes. After all, since taxable retail sales are distributed more evenly across households than income (especially capital income), a shift away from income taxes toward sales taxes would be attractive for the rich. Working against this, of course,

is the elimination of the deduction for the sales tax. However, at least for certain high-income households (namely, those who save a lot, or who spend much of their income on goods and services that are either untaxed or are not taxed within the home jurisdiction), the switch to sales taxation could be advantageous even taking the repeal of sales tax deductibility into account.

It is interesting to note, in this regard, that clever legislatures could effectively shift to a sales tax without sacrificing Federal income tax deductibility by imposing something like a sales tax while calling it an income tax. For example, it is well-known that an "income" tax that exempts capital income is a form of expenditure tax. Thus, states that wish to move closer to a sales tax could simply impose differentially lower income tax rates on capital income, or exempt capital income from taxation, wholly or partially, through the use of such devices as IRAs. There is ample precedent for differential rates of income taxation on capital, and for partial exemption of capital income, in both the Federal and state income tax structures. Thus, there would appear to be no major legal or administrative impediments to such modifications of state income taxes.

The reduction in marginal rates at the Federal level coupled with the elimination of sales tax deductibility could also be important for local government finance and for the relations between state and local governments. Since marginal rates have fallen, and since fewer households will be itemizing deductions, the implicit Federal subsidy to local government public expenditure, especially in high-income localities, will be significantly reduced. On the other hand, many states provide large amounts of aid to local governments, especially for school finance. Imagine a state that has been using sales taxation as a primary revenue source and that has been financing substantial transfers to local governments. If one considers the consolidated position of the state and its localities, one can easily see the potential payoff to a reduction of sales taxation, accompanied by a reduc-

tion in the level of transfers to localities and a corresponding increase in the level of local property taxes. In effect, in addition to changing the composition of state tax sources as discussed earlier, the elimination of sales tax deductibility could also induce a tax substitution that operates across levels of government.

From some viewpoints, this might be seen as attractive. According to one view of property tax incidence, a shift toward greater reliance on property taxation in the nation as a whole would increase the overall progressivity of the tax structure. This is a controversial conclusion, however, for a variety of reasons that cannot be explored here. But aside from the broad tax substitution effects of increased use of property taxes, one should take note as well of the implications of possible reductions in state aid to localities and an increase in own-source finance for local public goods and services. After all, one of the principal reasons for state aid to localities is to equalize the burdens and benefits of locally-provided public services. To the extent that states respond to the elimination of sales tax deductibility by cutting back on this aid, there will be increased fiscal disparities across localities within states.

On reflection, it is not implausible that preservation of the deductibility of the major local tax, the property tax, combined with the elimination of the deduction for a major state tax, the sales tax, might shift the mix of state and local taxes in the direction of heavier reliance on local taxes. The possibility that this could result in more unequal provision of local public goods is a nice illustration of the way that tax policy changes can create peculiar incentives with (presumably) unexpected consequences. Whether these particular effects will eventually materialize to a significant degree depends, of course, on exactly how state aid programs for local governments are actually cut, if at all. It is certainly imaginable that reductions in state aid to local governments would come primarily at the expense of high-income rather than low-income localities. In this case, a shift away from sales taxation toward property taxation

need not come at the expense of low-income jurisdictions. What exactly will happen depends on the political forces at work within the states. Speculation on these matters unfortunately carries us not only well beyond the range of the simple representative household model that we began with, but beyond the range of almost any rigorous modeling that has been done to date.<sup>9</sup>

#### IV. Conclusion

I have been discussing here some of the possible effects on state and local governments of the elimination of sales tax deductibility and of some of the other important tax policy changes that have occurred in the recent tax reform. These effects are potentially far-reaching, and could have a number of important consequences for equity and efficiency of resource allocation both in the public and private sectors. Predicting how state and local government policies will respond to the new Federal tax environment is fraught with difficulties, however. The range of state and local policies that are involved, including both tax and expenditure policies, and the many simultaneous changes that have taken place in the Federal tax law, complicate the issues enormously.

As I mentioned at the outset, this situation has the happy effect of providing a long agenda for research. Dissertations are there waiting to be written. I hope, though, that dissertations investigating the effect of the repeal of sales tax deductibility will be written by students well-trained in the latest techniques for separating out permanent and transitory policy shocks. It is true that tax reform is more or less with us to stay, the issue of state and local tax deductibility will presumably remain on the table. This makes matters somewhat difficult for state legislatures, which cannot change tax laws costlessly and effortlessly. Before overhauling state tax policy to reflect the latest Federal reform, I presume that time will elapse, for either or both of two reasons: first, it takes time for policymakers to understand and act upon the new in-

centives that the changed Federal tax structure has created, and second, one might wish to wait and see what next year's tax reform will bring. In short, the states and localities that try to adapt to a changing Federal tax law, like the rest of us, are aiming at a moving target. It seems unreasonable to suppose that they will react instantly and without error to every twist and turn in Federal tax policy. Taking proper account of lags and anticipations in state and local policymaking, however, is easier said than done. This is a problem that I, for one, am quite content to leave for others to solve. If anything, I think this will be harder to deal with than the analogous problems that have arisen in macroeconomics. I look forward to reading about the resolution of these issues in a forthcoming issue of the NTA-TIA *Proceedings*, announcing the winner of the competition for the outstanding doctoral dissertation in public finance.

#### NOTES

\*I am grateful to R. Inman for helpful discussions on this topic. I am solely responsible for any errors, however.

<sup>1</sup>See Bradford (1984), US Treasury (1984), and *The President's Tax Proposals to the Congress for Fairness, Growth, and Simplicity* (1985).

<sup>2</sup>See, e.g., Oakland (1986) and Kenyon (1986) for discussion of basic viewpoints about state and local tax deductibility.

<sup>3</sup>For discussion of these questions, see, for example, Gramlich (1985a, 1985b) and Chernick and Reschovsky (1986, 1987). Gramlich is concerned that deductibility, particularly of local taxes, primarily helps residents of high income suburban areas and stimulates public expenditures in such areas, and for this reason sees little to recommend deductibility. Chernick and Reschovsky, by contrast, focus their attention on the incentives that elimination of deductibility would create for the rich either to leave high-tax central cities or to be less generous in supporting redistributive public expenditure. For further discussion of these general issues, see, for example, US Treasury (1985, Chapter IX) and Courant and Rubinfeld (1987).

<sup>4</sup>It is argued in the *Blueprints* (see Bradford [1984, pp. 83-84] and also Bradford [1986, pp. 79, 94]) that state and local taxes should not be deductible, except for income taxes. The basis for this position is that there is a qualitative difference between income taxes and other state and local revenue sources in terms of the degree of linkage between the amount of tax paid by an individual and the benefits of state or local services received in exchange. However, as noted clearly

in the *Blueprints*, it is extremely difficult to ascertain which taxes really do correspond closely to the level of public benefits received by individual taxpayers. In any event, the current law does not reflect the *Blueprints* proposal, which would have done away with local tax deductibility.

<sup>5</sup>Arnott and Grieson (1981) provide an excellent exposition of this type of model and derive a number of the most important results. For further references to the literature and for some discussion of more complex and sophisticated models of the behavior of lower-level governments, see Wildasin (1986, 1987a). I should note that the results which I claim to be valid within the context of this model generally require various special simplifying assumptions, such as limitations on various cross-effects, general equilibrium interactions across taxed markets, and so on. The reader who goes to some of the original sources in the literature will quickly be able to get a more precise idea of what these limitations amount to.

<sup>6</sup>To get rough orders of magnitude for these revenue sources, note that states raised own-source revenues in 1984 in the following proportions. sales taxes, 25.1%; individual income taxes, 23.6%, corporate income taxes, 6.2%; charges, special assessments, and interest earnings, 21.1%; and other taxes, 24.0%. (Source: ACIR [1986], Table 34, p. 49, and author's calculations.)

<sup>7</sup>This is essentially the point that I have tried to make more formally and rigorously in the context of an analysis of the effect of tax exporting on public expenditure (Wildasin [1987b,c]). By contrast, authors such as Courant and Rubinfeld (1987) calculate the effective price for state and local public services as a revenue-weighted average of the local marginal cost of public funds from all of the revenue sources used by a state. According to this method, elimination of sales tax deductibility ought to raise the effective cost of public funds in a significant way because it increases one of the components of this weighted average. This method is the correct one if the marginal dollar of public expenditure is raised by a proportional increase in the amount of funds raised from all revenue sources, rather than from the source that imposes the least burden on the jurisdiction at the margin.

<sup>8</sup>Information about state tax systems is drawn from Commerce Clearing House (1987).

<sup>9</sup>The difficulties that one would encounter in trying to develop a really interesting model of joint determination of state and local tax policy and of state aid to local governments seem formidable indeed, although serious attempts, even if not totally satisfactory, should yield valuable new insights. In any event, one should not overstate the difficulties. Substantial work has already been done on the empirical side. For example, Feldstein and Metcalf (1987) estimate the effect of deductibility on combined state and local government taxation. Indeed, they prefer to deal with the consolidated state and local tax structure in order to avoid having to deal with the breakdown of financing responsibilities between states and localities. By contrast, Inman (1986) studies the effect of deductibility on tax structure for a set of city governments considered independently of the states in which they are located. Hettich and Winer (1984), on the other hand, examine the reliance on income taxation



across states without discussion of the possible interactions between state and local tax policy

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