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"Implementing Income and Consumption Taxes: An  
Essay in Honor of David Bradford"**

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A Tale of Two Davids:  
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David Weisbach has given us a work that would have made David Bradford proud. I can think of no higher compliment than that, and it is well warranted.

David Bradford devoted much of his considerable intellectual gifts to figuring out analytic equivalences among various, seemingly divergent, tax systems, and attempting to carefully explain them to participants in the political processes (as in *Blueprints for Tax Reform*, 1977 and 1984) and even a wider general public (as in *Untangling the Income Tax*, 1986). Bradford's earlier work, most prominently *Blueprints*, used the equivalence of "prepaid" and "postpaid" consumption taxes to mix and match in coming up with a practicable, comprehensive plan for tax reform. In his later work, Bradford went several steps further, developing the "X Tax" as a prominent alternative to the income tax, combining an individual level progressive wage (or, equivalently, prepaid consumption) tax with a business level tax measured by receipts minus wages (Bradford 2004). Both sets of ideas have had significant influence on real-world policy proposals and outcomes: a variant of the X-tax, for example, featured in the recent President's Advisory Panel on Federal Tax Reform (2005).

In his chapter in this volume, David Weisbach, following in the impressive footsteps of David Bradford, has bored down on some rather precise details, flirting with a general theorem of equivalence between income and consumption tax “implementation methods,” demonstrating that “for every income tax implementation method, there should be an equivalent consumption tax method” (Weisbach 2006). I shall call this idea the Equivalence Theorem. In other work (e.g., Weisbach 2000), David W. has similarly analyzed the precise implementation details of popular tax reform proposals, most notably the “flat tax,” and he has also examined closely the differences between income and consumption taxes (Weisbach 2004). Weisbach, like Bradford before him, pushed the analysis out far enough to see that the only difference between the two major comprehensive tax bases, at least in a Coasean-like world of no transactions costs and fully informed and rational agents (more on this, anon), lies in the taxation of the “pure, riskless return” to savings: an income tax includes this; a consumption tax does not. There is, of course, normative work to be done in deciding whether or not this aspect of material value *should* be taxed. But, first, note that this core difference between income and consumption taxes means that the “Equivalence Theorem” cannot precisely hold, as Weisbach well knows. It must, rather, be the case that any “implementation method,” not affecting the taxation of “time value returns”— as Weisbach calls the riskless return to savings — has an equivalent in the other major type of tax (i.e. every income tax has a consumption tax equivalent, and vice versa).

Stated thus, the Equivalence Theorem is almost surely correct, because it follows from definitions — if the only “real” difference between an income and a consumption tax is the inclusion *vel non* of the riskless return to savings, then there are no other differences between an income tax and a consumption tax. But to say that the Equivalence Theorem is obvious once suitably stated is not to say that it is not surprising, or valuable, to see laid out. After all, the Coase Theorem — which I simplify to my students by telling them that it stands for the basic proposition that “efficiency happens” — is also obvious enough, once Coase got around to setting it out and making most (if not quite all) of us see it, work for which he rightfully received a Nobel Prize (Coase 1960). There is no such prize in tax scholarship, alas, or David B. surely would have received it long ago, proudly, and David W. would be on his way to taking his own turn on the pedestal.

Thus David W. works out his basic ambition, and the Equivalence Theorem, with four specific examples, among many possible others:

1. cash-flow versus basis accounting;
2. individual versus business level taxation (or, perhaps better put, as Joel Slemrod notes in his commentary, because of incidence, individual versus business “remission” of taxes);
3. “open” versus “closed,” terms used somewhat idiosyncratically by David W., following his 2000 treatment, by which he means whether or not the tax system features transactional symmetry — that is, whether or not the tax treatment on one side of a transaction *dictates* the tax treatment on the other (buyer versus seller, say); and

4. international, such as destination versus origin-based taxes.

This is all good and important work, rich in detail and thoughtful analysis. David Weisbach's chapter rewards a close reading, and indeed, rereading.

In this brief commentary, I have three more humble goals. One, to take a step back, and situate the Equivalence Theorem in a wider intellectual history of tax policy, using slightly different terms, picking up, perhaps, the aspect of David B.'s life and work wherein he (sometimes) took pains to explain his analysis to a general readership. Two, I offer some comments on the normative foundations of this work, exploring the role of normativity within the analyticity of tax. Three, I offer some near final thoughts on, when all is said and done, how we should go about thinking about equivalent "implementation methods" in tax.

### **1. Laying out the Analytics of Tax**

Both Davids follow in a distinguished line of tax policy analysts, stretching back at least to John Stuart Mill (1848), who famously laid out the case against the income tax, as a "double tax" on wealth that is saved or not immediately consumed, and in favor of a consumption tax, as a single tax on wealth. The line continued through Henry Simons (1938 and 1950), Nicholas Kaldor (1955), William Andrews (1972, 1974, and 1975), Alvin Warren (1975 and 1980), and beyond. We can discern four distinct waves.

The first wave, beginning with Mill and culminating in Simons, was concerned with laying out the essential difference between income and consumption taxes. Income = Consumption plus Savings, to simplify Simons' precise language a bit (Simons 1938; McCaffery 2002). Rearranging terms, we can see that Consumption = Income – Savings (Fisher and Fisher 1942; Andrews 1974). Thus an income tax includes, and a consumption tax excludes, savings from its base. This leads to Mill's (1848) critique of the income tax as a "double tax" on wealth that is not immediately consumed, because the wealth is taxed first, when it enters the household, and again when, not having been consumed, it generates a yield.

The second wave, which certainly had its roots in prior writings, reached full flower in the writings of Andrews (1974) and Bradford (1977 and 1984). Whereas income taxes are "double" taxes on wealth, consumption taxes are "single" ones. This led to the observation that, holding tax rates constant, it does not matter when the single tax gets levied: it could come up-front, when money is earned, as in a wage or "prepaid consumption" tax, and never again; *or*, it could come later, when money is spent, as in a sales or value-added or "postpaid consumption" tax. Algebra alone tells us the two forms are equivalent. Let P equal principal or present value, r the rate of return, n the compound period, t the tax rate, and (1 – t) the value left after-taxes in a taxpayer's hands. Then the commutative principle of multiplication, which holds that ab = ba, tells us that:

$$(1 - t) P (1 + r)^n = P(1 + r)^n (1 - t)$$

In simpler terms, under a "flat" rate structure, wage taxes and sales taxes are equivalent.

The third wave challenged the equivalence, given “inframarginal returns” or the return to risk, noting that a postpaid consumption tax reached such “windfalls,” whereas a prepaid consumption tax did not (Graetz 1980, McCaffery 1992 and 2005) .

The fourth wave (Bankman and Griffith, 1992, Warren, 1996), of which David W. is a prominent representative, has come around to see that the difference between an income and a postpaid consumption tax may not be so great, turning only on the taxation of the pure riskless return (Weisbach 2004), which Bankman and Griffith first considered at length in the legal literature at a time when a case could be made that this pivotal rate was close to zero. (Other aspects of this fourth and contemporary wave concern a debate as to whether the portfolio adjustments needed to eliminate the taxation of risk under various regimes in fact get made; one hears echoes of all this in David W.’s chapter).

David W.’s paper, like much of David B’s work, grows out of this background; it assumes some knowledge of a conversation long running. Interestingly, for David W. and many others writing in this tradition (e.g Auerbach 2006), *prepaid* consumption taxes have dropped out of the analysis, as an obviously inferior choice that does not even reach “infra-marginal returns.” The difference between an income and a *prepaid* consumption tax is the taxation of any and all returns to savings: pure riskless, infra-marginal, and otherwise (Weisbach 2006). As I shall explore further in the next section, David W.’s (implicit) acceptance of the norm of taxing at least the infra-marginal returns leads him to define “consumption” taxes as only including postpaid models: the equivalence of the

second phase of tax policy analysis has altogether gone by the boards. This is a bit curious because, as I have argued at some length elsewhere (McCaffery 2005), practical tax policy has been heading relentlessly, and seemingly inexorably, towards a prepaid consumption or wage tax for some decades now. In other words, somehow, some way, tax policy analytics have gotten away from the people and practice of tax.

## **2. The Normativity of the Analytics**

David Hume (1739) (to bring another David to bear) famously cautioned that one cannot derive an *ought* from an *is*: that a simple statement of fact or analytic truth cannot dictate a moral, normative position. Although there are subtle ways in which facts can indeed have normative significance — the postmodern turn in philosophy and language having long ago attempted to “implode” the fact-value distinction behind the Humean position — it nonetheless takes argument to get from a truth to a principle, especially with analytic truths. Yet, it is surprising how often analytics lead to apparent norms without pause or reflection. The most famous and damaging example in tax policy is the Haig-Simons definition of income, which holds: “Income may be defined as the algebraic sum of the market value of rights exercised in consumption plus the change in value of the store of property rights between the beginning and end of the period in question.” (Simons, 1938). Or, more simply, as noted above, that  $\text{Income} = \text{Consumption} + \text{Savings}$ . This definition is no more or less than a tautology, which can be restated as the truism that all Income is either Spent (Consumption) or Not (Savings) (McCaffery 2002). Yet this definition has led to many a tree being felled in pursuit of the “comprehensive tax base as an ideal,” a concept that Boris Bittker most heroically



attempted to lay to rest, without total success. (Bittker 1967). Part of the brilliance of Andrews' work (e.g, Andrews 1972) was to see that not all consumption — such as medical expenses and casualty losses — stood on the same normative footing, in terms of ordinary moral intuitions. I have attempted to argue that we had best extend Andrews' insight that “uses matter” to the uses of savings as well as consumption (McCaffery 1992 and 2005); just as Emerson (1841) cautioned against an at least “foolish consistency,” “comprehensiveness,” without argument, is not an ideal.

Similar moves and mistakes have haunted other aspects of tax policy. There is a danger in going far, as both Davids, Bradford and Weisbach, were inclined to go, with the analytics of tax policy, without first getting the normative foundations and commitments down right. One can get blinded by the analytics, making “equivalents” into arguments without justification or broad-based appeal to ordinary moral intuitions. I had a long running conversation with David B., which, tragically, was never resolved in our lifetimes. Bradford, like others in the line of tax policy he pursued, through the “fourth wave” and beyond, seemed to believe — rather passionately — that the analytics, beginning with Mill, led to a normative position. The ideal was that the timing of a person's consumption patterns should be irrelevant to the ultimate imposition of taxes (Bradford 1980 and 1998). This norm was also central to Andrews (1974) (see also Andrews and Bradford 1988), which led him, in the face of a critique from Warren (1975 and 1980), to be troubled by progressive rates, which destroy the equivalence of prepaid and postpaid consumption taxes, as noted in the equation above (Andrews 1975). Bradford kept pushing out the analysis, and so *Blueprints* featured an elaborate plan for

income and consumption averaging, and his later work (e.g., Bradford 1998) explored the “problem” of varying tax rates in even greater detail. Such analytics haunt David Weisbach as well: he frets over “consumption lumpiness” and seems to assume that the only debate worth having is whether tax should include “time value returns” or not. Once we have made this central choice, the Equivalence Theorem gives us a menu of practical implementation details to consider, which can be left to technocrats to sort through (who else could understand them?). This pattern of thinking leads to, among other things, the out of hand dismissal of prepaid consumption tax models — which just so happen to be dominating the real world of tax politics.

Now I find this way of going about answering the “ought” questions of tax puzzling and unhelpful. First off, I have always found it odd that many tax policy theorists, with the notable exception of William Vickrey (1939 and 1947), have not been all that bothered by *income* lumpiness, although the pattern of labor and even capital market returns seems more morally arbitrary than the pattern of consumption or spending. Further, as I have argued at some length, the problem of consumption lumpiness seems wildly overstated as a criticism of my preferred tax policy outcome, a progressive postpaid consumption tax (McCaffery 2005). But most fundamentally, while the norm of “consumption neutrality,” or imposing equal burdens on aggregate consumption paths equivalent in present value terms, strikes me as an elegant touch, to be sure, it is hardly the kind of foundational, “all the way down” norm that can drive a practicable and politically acceptable tax policy. The normative commitment of a progressive cash flow consumption tax is to tax people when, as, and only when, they spend. At the moment of spending, or “private preclusive

use” as Andrews (1974) called it, society can make the inevitable judgments of the appropriate level of taxation. Those who are living “well,” in some objective sense of the term, pay more taxes than those who are living more modestly, and so on. People who work hard and save well, and pass on wealth to their heirs, need not envision death-bed taxation: the heirs, having inherited the assets with a “carryover basis” of zero, will pay taxes when and as they spend, at progressive marginal rates triggered by their lifestyles. The analytics of the progressive postpaid consumption tax follow from its normative commitments, which in turn reflect an interpretation of reasonable ordinary moral intuitions, rather than analytic equivalences.

Back to David W.’s effort, I am even more skeptical that his equivalents can be normative “all the way down,” as a philosopher might write. I find it implausible, that is, that anyone could have a foundational commitment to “basis method accounting,” such that one would cling to an income tax, until or unless a basis method consumption tax could be worked out. What David W. has shown us, in a project that would have done David B. proud, is that it is possible to pose a quite general Equivalence Theorem; indeed, my statement in this Commentary goes beyond the strength of the statement David W. made in his chapter. But this follows, as I have said, from definitions: if the only real difference between an income and a consumption tax is the taxation of time value returns, then the Equivalence Theorem, ala Coase, must hold. What does not follow from definitions is any kind of normative position. We are still waiting for that, as for Godot.

### **3. Thinking about Equivalents**

If, as I have argued, equivalent implementation methods are not themselves normative, all the way down, and if, in fact, running with the analytics before walking with the moral commitments has interfered with the development of compelling tax policy in sync with ordinary moral intuitions, what then, are “equivalent implementation methods” all about? Here I think there are three very important sets of answers, reminiscent of post-Coasean developments in economics: transactions costs, politics, and perceptions.

Transactions costs are of course a familiar subject of post Coasean economics (Williamson and Masten 1998), well known to destroy the theoretical equivalence of different allocations of rights. It is worth noting, as David W. does, that there might be very wide divergences among various equivalent implementation methods, such that, as Slemrod (1990) has argued, “optimal tax systems” may mean something very different from “optimal taxes.” Here, “equivalent” implementation methods may not be equivalent at all, because of their different transactions costs, and so it helps very much to have the menu of “equivalents” the Davids have started to provide.

Politics clearly matter, because tax reform is a quintessentially political act. As Dan Shaviro (2006) has persuasively shown, politics can interact with “ideal” tax policy in ways that will make certain reforms, ex ante, more or less attractive, because of how they are likely to look, ex post. Whether businesses or individuals remit taxes may not “matter” to the ultimate output of material well being, but politicians may be more or less likely to raise, or have more or less political will to enforce, taxes remitted at different

levels. So too with “basis” versus cash-flow accounting, as David Wesibach (2006) notes: given a mechanism for keeping track of basis, politicians may be tempted to alter it. And so on.

Finally, to get back to some of my own work, this time in a different key, perceptions matter. Politicians and citizens will not always perceive “equivalent” mechanisms as being equally attractive, because of their “framing” and other psychological properties (McCaffery & Baron 2005, 2006; McCaffery & Slemrod 2006). The most ready example of this, of course, is business versus individual level remission of taxes: economists and other readers of this volume may understand that it does not matter where the nominal or statutory incidence of a tax lies, but try explaining that to any citizen — or politician dependent on the votes of citizens — at your own peril. Broad-based, welfare-enhancing tax reform cannot obtain without broad-based understanding and popular support, so it behooves those of us living in the real world to figure out the most attractive ways to “package” good ideas (McCaffery and Baron 2005). Of course, those on the other side will be using parallel techniques to package their “bad” ideas, so there is not, alas, an easy answer of yet. Hard questions persist.

For all these reasons, the Equivalence Theorem is a very important advance in our knowledge of theoretical and practical tax policy. David Weisbach, following in a tradition most ably serviced by David Bradford, has given all of us a dizzying array of choices to implement the tax policy we “really” want and deserve. If none of this is actually helpful in figuring out what, in the first instance, we really do want and need,

that is, in the end, our bad, and our responsibility, not theirs. Meanwhile, we can thank the two Davids, and hope for more like them.

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