

## The Fallacy of the "Three-Legged Stool" Metaphor

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Tax students, especially at the state level, ply their trade by invoking one metaphor above all others: the three-legged stool.[1] It rests on the claim that a sound and successful tax regime for any government needs to rely on a three tax bases: income, property and sales. This is repeated so often that it passes today without much examination.

There seem to be mainly three arguments for this:

- 1. that taxes should be drawn from as wide an array of sources as possible so as not to overburden any one base or sector.
- 2. that the spread of tax burdens over a number of bases will ensure greater stability and reliability.
- 3. that reliance upon a wider number of revenue streams minimizes the downside consequences which all taxes impose on the economy.

It is even claimed that revenue streams should rely on each such base in roughly equal proportions, lest structural imbalances will otherwise eventuate that jeopardize public support of government. There are of course exceptions. States that have rich mineral wealth have the luxury of imposing taxes that relieve them of the need to rely equally on the "big three." So also for states that have a rich tourist industry or that can rely heavily on gambling revenue. But a state is open to the charge that its revenue structure is unbalanced, unfair, or worse unless such special circumstances warrant.

Such wisdom is found most frequently in the literature of various tax study commissions periodically constituted over the past thirty years. Many of the staff directors of these bodies have circulated from state to state as traveling emissaries, and it is not surprising therefore that their official reports often bear a striking resemblance to one another.[2] Typically they address matters such as the extent to which various taxes conform to the venerable principles of sound tax theory (discussed further below), their competitiveness with other political jurisdictions, and the balance of revenue streams.

The Montana Committee study,[3] chosen here simply as a typical illustration, makes special effort to argue that "elements of a high quality revenue system are complimentary rather than contradictory. Taxes should complement each other so they provide a way to have all economic activity and wealth contribute proportionally to supporting government services. Taxes should not be just a number of different methods to generate revenue from the same economic activity or wealth; thus taxing some segments of society very heavily and others sparsely."

It goes on to argue that "a high quality state revenue system reflects the limitations and financial responsibilities that state government places upon local governments. State

policy makers should be explicitly aware of the costs that state mandates impose on local governments, and local governments should have the authority to raise sufficient revenues to meet these obligations. If local governments lack the revenue bases necessary to provide services mandated by state government, state policy makers should consider statewide solutions to avoid extreme inequities. As an example, in some instances, state government could consider subsidizing local governments to reduce local tax burdens or increase service levels for governments that lack enough taxing capacity to meet some state standard of services. This approach however, should be weighed against the principle of local autonomy. In which local voters decide which services they want to receive and raise the money to pay for them."

The Montana study reflects the conventional wisdom that "a high quality revenue system relies on a diverse and broad based range of sources. One of the goals of a quality revenue system is economic neutrality to prevent the distortion of individual and business behavior. If reliance is divided among numerous sources and their bases are broad, rates can be made low in order to minimize the impact on behavior. A broad base itself helps meet the goal of diversification since it spreads the burden of the tax among more players than a narrow base does. And the low rates that broad bases make possible can improve a state's competitive position relative to other states. When possible, we should try to balance our tax systems through reliance on the three-legged stool of income, sales, and property taxes in roughly equal proportions, with excise, business, gaming, and severance taxes, and user charges playing an important supplementary role. In any instance, every attempt should be made to avoid excessive reliance on any single revenue source."

The power with which the three-legged stool analogy has underpinned tax policy is in fact rather disconcerting, because a close examination of its premises shows that they are very questionable. These benchmark measures of a tax regime are scrutinized here in order to cast doubt on the claims so often made on their behalf.

Taking first the argument that spreading the tax burden over as wide a base of sources as possible, it is best to begin by noting that revenue streams can be drawn from only three elements of the economy: land, labor, and/or capital. Standard textbooks for Economics 101 typically start with recognition of these factors, even if they usually give insufficient attention to land as a component. Classical economics, culminating particularly in the tradition of Henry George, includes in the idea of land any and all components of value not created by human hands or minds. It therefore means not just locational sites on the earth's surface that might be bought and sold as real estate, but other elements of so-called "natural capital" as well: the electromagnetic spectrum, air, water, fish in the ocean, mineral wealth, airport time slots, and so on. Those elements have a market price, and can be - indeed are - often subject to taxation. It is important to note, however, that taxes on such land are capitalized in the market value of their worth; they cannot be passed forward or backward because their supply is essentially inelastic.

This is important, as will be noted below, because imposing such taxes incurs no excess burden on their use or upon the general economy. Taxing such bases is totally neutral and completely efficient. Indeed, it is the failure to tax land as stated that leads to economic

distortions and cause an economy to function at a sub-optimal level. Land, whatever its form, has a market value only to the extent that a human presence exists to make use of it, and it acquires that value due to the accretion of economic rent, the return on labor and capital, that comes to rest on such factors.

Taxes on labor and capital, in contrast, are always shifted. Studies of so-called tax incidence seldom trace the flow of tax burdens beyond the first or second of the shift. Textbooks and research studies will note that particular burdens - for instance, a tax on the sale of goods - will be partly borne by the vendor and partly also by the consumer. The vendor in turn sees that tax incorporated into the price he pays for the product at the wholesale level; the consumer sees his burden reflected in the relative cost of living of his tax jurisdiction - which in turn affects the price of his home and his wages. The shift in taxes, as economic theory makes clear, are ultimately converted to rent, and that rent, as capitalized in land prices, is its final resting place. It is a truism of classical economics as carried through in the present day tradition of Georgism that *all taxes come out of rent* -- an adage that has come to be abbreviated as ATCOR.

What this insight means is that all taxes not first imposed on landsites and collected from the rent that rests thereon are instead passed through the economy from one party to another until they ultimately come to rest on land. The passing along of tax burdens not only creates distortions in economic transactions; it also constitutes an excess burden and an inefficiency that handicaps economic performance. Taxing capital makes it more expensive and leads to less saving and investment; taxing labor, in the same way, depresses wages and discourages enterprise. Contemporary economists and conventional tax theorists well recognize that taxing labor and capital is detrimental to economic vitality -- politicians thrive on repeating this *ad nauseum*. Currently the Republican party seems best able to exploit resentment about the negative impact of taxes. But it is not alone in failing to appreciate the nature of tax shifting. What all fail to realize is that there are exceptions to the rule that taxes are destructive: any tax imposed on an inelastic base - that is, any form of land -- constitutes no distortion or excess burden whatsoever.

Far from spreading the burden of distribution over a wide array of tax bases, the ideal tax, then, should be imposed solely on those factors of production that form an inelastic base, i.e., that constitute forms of land - whether they be locational sites, natural resources, the spectrum, time slots, or others as they may arise in the future. Land, in any of its forms, is totally inelastic. Will Rogers in his pithy way said it well, "Buy land. They ain't making any more of the stuff." Mark Twain said it too.

A second claim among advocates of spreading tax burdens over the "big three" bases (and sometimes more if possible) is that it insures greater reliability and stability of the revenue streams supportive of government services. To be sure not all government services require stable budgets - motor vehicle licensure varies with the state of the economy as do the needs of social welfare programs and some offices related to capital investment. But most programs do need to rely on predictable and stable financial support, particularly education, health, and public safety. With revenue streams based on formulas that vacillate from year to year, it becomes difficult to provide for public needs,

and the continual struggle over fiscal designs in the political arena is frequently costly.

Economic cycles are accepted as a given in both government and business circles. But there is compelling evidence that such cycles have their roots in the tendency for elements of the financial community to speculate in real estate, fostering bubbles in their market prices that ultimately must be reconciled with the real demand.[4] Because the market price of landsites is in good part a function of the settling of rent, the recapture of that rent in the form of taxation would both stabilize those markets and remove the cause of those regular cycles. By collecting only a miniscule element of land rent, and instead collecting revenue from labor and capital, economic cycles are amplified and exacerbated, to say nothing of their effect on productivity. Evidence of the stabilizing effect of taxes on landsites in the form of economic rent collection is shown best by the fact that those nations and states that rely most heavily on land taxation are least subject to cyclical tendencies[5] and intermittent recessions. Japan, which imposes no tax on urban land, has yet to recover from the crash in hits real estate market almost fifteen years ago.[6]

The third claim, that reliance upon a wider number of revenue streams minimizes the downside consequences that all taxes impose, requires an extensive examination of the various options available. What, first of all, are those aspects that must be avoided? What are the standards against which various taxes can and should be measured? These are typically listed as anywhere from four to even seven depending upon their description. Mostly commonly are neutrality, efficiency, equity, administrability, simplicity, stability, sufficiency.[7] Tax theorists typically measure revenue structures according to any or all of these criteria:

Tax neutrality refers to the influence (or absence of such) that any particular design has on economic behavior. Typically taxes are perceived as a damp on economic activity -- taxing income reduces the incentive to work, taxing sales discourages retail transactions, and taxing savings reduces the propensity to save. The more a tax is perceived to be neutral the less the identifiable distortions it imposes on the economy. The common assumption of most tax theorists is that all taxes impose distortions; it's simply a matter of which ones are least burdensome to economic health. A tax which imposes no distortions is ideally best.

Tax efficiency is much like tax neutrality, and is the measure of how much shifting of behavior it imposes, resulting in what is called "excess burden," or "deadweight loss" on the economy. Tax economists usually hold that the best taxes are those that are shifted little if at all. Because the elasticities (a technical word for the slope of supply and demand curves) of each are very different, a tax on land values and a tax on improvement values have very contrastive effects on socio-economic choices. Using a tax base that has little or zero elasticity is the best way of assuring that taxes are not shifted. Zero elasticity is another way of saying fixed supply.

The principle of equity is central to any discussion of tax design. Tax design requires concern with both what is fair and the extent to which it must sometimes be compromised

to satisfy the other principal criteria. Fairness can be evaluated according to what is termed "horizontal equity" -- the extent to which those in similar circumstances will pay similar tax burdens, and "vertical equity" -- how well those in different classes bear different burdens in the tax structure. It is this latter perspective that leads to the use of terms like "proportional," "progressive," and "regressive" in referring to tax structures. A tax is progressive with respect to income if the ratio of tax revenue to income rises when moving up the income scale, proportional if the ratio is constant, and regressive if the ratio declines. There is an ancillary question of whether taxing to reach greater equity should employ measures of income or of wealth, difficult as this is to measure. Such questions of equity are a matter particularly central when discussing the property tax. This will be discussed further below.

Administrability refers to the ease with which a tax can be administered and collected. Taxes which distort the economy are inefficient but so are taxes that cost lots to administer. This is measured not only in the direct costs of tax avoidance and accounting expenses, but in the level of evasion and cheating, and by the cost of government auditing and policing. When the taxpaying public perceives that a tax is easily evaded, cumbersome, and unfair, it loses its legitimacy and calls government itself into question.

This is why the principle of simplicity is important: the more complex the tax design, the more lawyers and accountants will find loopholes, encourage the appearance of unfairness, and drive up the cost of its administration. People know that with simple taxes other parties are also paying their fair share, and all this enhances the legitimacy and therefore the compliance of the tax system.

Stability refers to the ability of a tax to produce revenue in the face of changing economic circumstances. Income and sales taxes, for example, vary greatly according to phases in the economic cycle; the property tax, in contrast, is highly stable regardless of the state of the economy. This is one reason why school administrators have typically been supportive of using the property tax base rather than some other tax to support school services.

The certainty of a tax's collection ensures that the number and types of tax changes be kept to a minimum. Frequent changes in tax rates and bases interfere with business decisions and the ability to make long-term financial plans. This concept reinforces the need for stability because an unstable revenue system is more likely to require continual adjustments.

In assessing the value of a tax it is also important, of course, to understand its potential to bring in revenue for the purposes of government, usually deemed revenue sufficiency. Income, sales and property taxes, along with corporation taxes to a lesser extent, have come to be regarded as the workhorses of the American revenue structure. But, as anti-tax politicians are quick to note, the higher these taxes are, the more they impose a drag on the economy. This is why one should ponder whether to consider raising taxes which have demonstrable distorting effects.

To be sure, all of the "big three" taxes do indeed have negative consequences. This is because all three are imposed largely on capital and labor; only a minor component of taxes on property constitute collection of economic rent. Yet students of the real property tax readily acknowledge that it has two components: that imposed on land values and that imposed on improvements. When the improvements are taxed at a lower rate or when that levy is totally removed, the tax constitutes a collection of rent alone. Because that land is part of an inelastic tax base, it is totally neutral, completely efficient, simple to understand and to collect, a stable tax base, and easily administrable. This last is particularly important: in recent years it has become possible in principle to assess land value by computer algorithms (called computer-assisted mass appraisal, or CAMA), obviating the need for assessors altogether. Isobars can be drawn on maps showing land values similar to how elevations in land topography are shown on geographic maps. A traditional criticism of conventional property taxation, that assessment was often arbitrary and subjective, no longer need be a compelling criticism.

The one criticism often levied against the conventional property tax is its regressivity. This is in fact belied by the facts. Only two empirical studies have ever been done on the subject, but both concluded that the real property tax is mildly progressive.[8] When the two elements of the property tax are taken separately, it becomes even clearer why this is so: the land component of real property, being inelastic, cannot be shifted to tenants, and is borne solely by the titleholder to the property. When it comes to incidence of payment, the roughly 35 percent of all American households who rent and do not own (largely poor people) bear no tax burden whatsoever. Only the improvement part of the real property tax is in any way shifted to tenants. Even among the homeownership element of the American population, studies have shown that a shift of the tax to land values typically lowers the burden on about two thirds of all households. This is because landsites on which homes are situated are typically not in the highest land value neighborhoods, and it is business and commercial sites - particularly the underused land parcels in those neighborhoods - that typically bear a larger burden.[9] So that in fact a tax on land values is really a profound shift in the direction of progressivity.

If one realizes that houses, just like cars, refrigerators, computers and other manufactured items, depreciate in value and that only land increases in market value due to the factors of inflation and rent accretion, it will become clear that the remedy for onerous real estate taxes is downtaxing buildings and uptaxing landsites. The result of doing so will stabilize tax burdens for those who otherwise resent their payment. In the unusual cases, especially during transitions, when titleholders of limited income cannot manage such obligations, taxes can easily be deferred until owners "cash out" by selling or dying when such debts can be settled. Sales of appreciated landsites typically provide estates with adequate wherewithal to both pay any back taxes and give a capital gain too.

The upshot is that a tax on land value alone -- totally neutral, efficient, certain, progressive, stable, and administrable -- measures up so well that it looks like the perfect tax! It is even argued that a land tax is "better than neutral," in that it actually fosters the kind of economic activity that fosters vibrant communities.[10] It also has very positive environmental effects inasmuch as it reverses the centrifugal forces of suburban sprawl

development and stimulates and facilitates investment in urban cores.[11] Evidence on this matter supports the claim that taxing land alone is a more appropriate solution to both tax issues and spatial configuration issues than any other remedy. In the final analysis, studies show that very few states measure up to the one-third -- one third -- one-third standard in any case. Political and other factors aside, there are good reasons for a state's not abiding by such rules. It is only due to misunderstandings that faith in the big three taxes constituting the three-legged stool have come to prevail. When these taxes are measured by the extent to which they conform to the conventionally accepted principles of sound tax theory, they appear wanting. By shifting to the collection of economic rent, manifest mainly in the form of land value taxation, governments will better succeed not only in overcoming the prevailing resentment against current taxation policies but provide better financial support for those services which are the rightful province of public obligation.

## REFERENCES

[1] There is no difficulty in citing such references, in textbooks or online. A quick search of the web turns up the following as illustrations: A Fiscal Crisis in State Budgets: Are Taxes in Western States, *WRDC Public Policy Information Brief*, No. 2, July, 2003; A Theory and Reality: Arizona's Tax Structure, by Marshall J. Vest, Eller College of Business, University of Arizona, n.d.; A Ranking Maine's Business Climate, by Charles Lawton and Frank O'Hara, Maine Center for Economic Policy, July, 2004; A Report of the (Ohio) Committee to Study State and Local Taxes, March, 2003; A Comments from the Utah Education Association on State Tax Policy, n.d.; A [State of] Washington has the most unfair tax system by Polly Keary, in *Real Change*, 4/29/04; and A Look behind the rhetoric of tax reform, by Andy Brack, [South Carolina] Statehouse Report, Dec. 7, 2003.

[2] There are several studies of the work and value of tax study commissions, easily available online. One such is by Therese McGuire, "Toward State Tax Reform: Lessons from State Tax Studies," Prepared for the Finance Project, November, 1995, at [www.financeproject.org/toward.html](http://www.financeproject.org/toward.html). Some states that have enlisted such projects are enumerated in that paper, but far from all of them.

[3] A Universal Guiding Principles of Taxation, Prepared for the Tax Reform Committee, Created by HB461, 2003 Legislative Session, Report issued August, 2003, and available at [www.discoveringmontana.com/revenue/content/5foryourreference/studycommittees/taxreform/guidingprinciplesoftaxation.doc](http://www.discoveringmontana.com/revenue/content/5foryourreference/studycommittees/taxreform/guidingprinciplesoftaxation.doc).

[4] See Mason Gaffney, A The Philosophy of Public Finance, especially, pp. 188-192, in Fred Harrison (ed.), *The Losses of Nations: Deadweight Politics versus Public Rent Dividends*. London: Othila Press, 1988.

[5] See, for example, David Richards, "Land Markets and Business Cycles in the UK and Australia," at [www.cooperativeindividualism.org/richards\\_land\\_markets\\_uk\\_and\\_au\\_01.html](http://www.cooperativeindividualism.org/richards_land_markets_uk_and_au_01.html) ; Bryan Kavanagh, "The Recovery Myth, Prosper Australia, 1994; and John M. Quigley, "Real Estate and Economic Cycles," *International Real Estate Review*, Vol 1, #2 (1999).

[6] See, for example, Mason Gaffney and Richard Noyes, "The Income Stimulating Effects of the Property Tax," in Fred Harrison (ed.), *The Losses of Nations: Deadweight Politics versus Public Rent Dividends*, London: Othila Press, 1998; and studies of Asian rim countries' comparative reliance upon land taxation.

[7] Professor Fred Foldvary -- [www.progress.org/archive/foldvary.htm](http://www.progress.org/archive/foldvary.htm) -- has been especially articulate in reviewing the links between land values, land taxation, and economic cycles.

[8] For a discussion of what students of tax policy regard as the principles which should guide their design, see, for example, George Break, "Taxation," *Encarta Encyclopedia* by Microsoft, 1993; "Principles of Taxation, in Light of Modern Developments," *Washington: Federal Tax Policy Memo*, The Tax Foundation; "Principles of a High Quality Revenue System," *Tax Notes*, March 21, 1988; and David G. Davies, *United States Taxes and Tax Policy*, (New York: Cambridge University Press, 1986), pp. 17-19.

State studies cited above also typically list any or all of these criteria. I have seen accountability, balance, certainty, competitiveness, and complementary included as well.

[9] See Peter Mieszkowski, "The Property Tax: An Excise or a Profits Tax," *Journal of Public Economics* 1 (April 1972): 73-96, cited and discussed extensively by James Heilbrun, "Who Bears the Burden of the Property Tax?" in Lowell Harriss (ed.), *The Property Tax and Local Finance*, Proceedings of the Academy of Political Science, Vol 35, #1 (1983), pp. 56-71, and Henry J. Aaron, *Who Pays the Property Tax: A New View*, Washington: the Brookings Institution, 1975. See also Harvey S. Rosen, *Public Finance*, 2nd Edition (Homewood, IL: Irwin Press, 1988), pp. 483-489; Mason Gaffney, "The Property Tax is a Progressive Tax," Proceedings, National Tax Association, 64th Annual Conference, Kansas City, 1971, pp. 408-426. [Republished in *The Congressional Record*, March 16, 1972: E 2675-79. (Cong. Les Aspin.) Resources for the Future, Inc., *The Property Tax is a Progressive Tax*, Reprint No. 104, October, 1972].

[10] For further discussion of this, see the work of the Center for the Study of Economics, based in Philadelphia - [www.urbantools.net](http://www.urbantools.net).

[11] T. Nicolaus Tideman, "Taxing Land is Better than Neutral: Land Taxes, Land Speculation, and the Timing of Development," in Kenneth C. Wenzer (ed.), *Land Value Taxation: The Equitable and Efficient Source of Public Finance*. Armonk, NY: M.E. Sharpe, 1999. H. William Batt, "Stemming Sprawl: The Fiscal Approach," in Matthew Lindstrom and Hugh Bartling (ed.), *Suburban Sprawl: Culture, Theory, Politics*. Lanham Md: Rowman and Littlefield, 2003.