A TAX ON LAND VALUE *IS* NEUTRAL

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BRIAN Bentick (1979) has argued that there are circumstances under which a tax on land value is not neutral. David Mills (1981) has extended Bentick's analysis. This note argues that the tax that Bentick and Mills analyze cannot reasonably be described as a tax on land value and that a true tax on land value is neutral, just as we have always known.

Bentick and Mills define the value of land in such a way that the value depends on how the land is used. Such a definition has no special virtue from the perspective of theory and does not correspond to anything that might plausibly be observed empirically. It is quite unsurprising that a tax on "land value" should be found to be non-neutral if land value varies depending on how land is used. The central issue is the following: After a site has been committed to a given activity, should its value at some future time t be defined as the value discounted to t of the returns beyond t given the commitment that has been made, or should it be defined as the value discounted to t of the returns beyond t that would be possible if no commitment had been made?

Bentick and Mills treat the value of a site at any time as if it were the discounted value of the future returns to the site, as of that time, given any commitments that have been made. The first objection that might be made to this approach is that it is not consistent with any operational algorithm for determining the value of land. The Bentick-Mills treatment of land value implicitly supposes that returns to land come in the form of observable contractual payments, the present value of which can be computed to yield the value of the land. On the contrary, most land is held by individuals or firms that use the land in conjunction with other inputs to yield an aggregate return that cannot be allocated unambiguously among inputs. It is not possible to have a tax on "land value" if land value is defined solely in terms of future returns, because those returns are not presently observable.

If the opportunity cost of every input to a project other than land is known, then the present value of the return to the land over the span of the project can be computed as the present value of the total return less the present value of the opportunity costs of other inputs. But it is unlikely that all such opportunity costs could be known, if for no other reason than that one of the inputs used is specialized entrepreneurship, the quantity of which, as well as the unit opportunity cost, cannot be measured in any reliable fashion.

Even if the opportunity costs of all other inputs were known, it would still not be possible to allocate the return to land among time periods until the pattern of depreciation of all capital improvements on the land had been determined. In the absence of land value information, there is no way to make an unambiguous determination of the depreciated value of improvements from the pattern of returns to the combination of land and improvements. On the other hand, after the value of land at each point in time has been defined, it is possible to define the depreciated value of any improvements to the land at any point in time as the sale value of the combination of land and improvements less the sale value of the land.

When economists describe land value as the present discounted value of a stream of future returns net of all other costs, they are not describing an identity that can be verified by undertaking computations with observable magnitudes. Rather, they are describing the subjective process that the bidders for and sellers of sites might plausibly be understood to employ to determine their bids and asking prices.

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Future returns do not exist as observable magnitudes, only as the subjective expectations of traders.

We will never have the chance to check our theory by observing the net return to a parcel of land over the whole span of time that is covered by a present value calculation. The most that we could do would be to observe the selling price of land at two points in time and the net returns over that span. Our theory tells us that with perfect foresight and perfect markets, the first selling price will equal the present value at that time of the combination of the second selling price and the net return earned between the two sales. But we would not discard the theory if we found that that identity did not hold; we would merely say that either markets were imperfect or some event not anticipated with certainty by the market had occurred.

At the level of things that are or might be observed, the value of land is not the present value of future net returns, but rather the price at which land sells. If a piece of land has not sold recently, what is meant by its value is the price at which a reasonably well informed person thinks it would now sell in a transaction with no unusual features—no need on the part of the seller to sell quickly and no unique value of the land to the buyer.

If the improvements did not depreciate and if comparable improvements were now being placed on comparable sites, then the value of the land could be computed as the sale price of the combination of land and improvements less the value of the improvements. But such circumstances would be rare.

When one is speaking of a site that is endowed with improvements that cannot economically be removed to another site and are not now being replicated on comparable sites, the most sensible meaning to give to the phrase "the value of land" is the estimate of a reasonably well-informed person of the price at which the land would sell under the hypothetical condition that the land was not endowed with any improvements. Such a judgment would be based on the observed selling prices of vacant land that was either comparable or different only in ways for which adjustments could be made, or it would be based on an effort to imagine the calculation of the present value of net returns that buyers and sellers might make if the land were bare.

Such a concept of the value of improved land differs in a very significant way from the concept that is employed implicitly by Bentick and Mills. They treat the value of a site as if it were synonymous with the present value of the future net returns to the site, given any commitments to future activities on the site that may have been made (as by erecting improvements). But that is not a reasonable thing to do, if for no other reason than that future returns cannot be observed in the present. Furthermore, if the owner of a site can alter his future taxes by committing the site to an activity, then that possibility provides the basis for the non-neutrality that concerns Bentick and Mills.

Consider Bentick's example:

> Consider a piece of land which may be used in two alternative projects, 1 and 2, Project 1 offers the land immediate rentals of $1.00 per year in perpetuity, while project 2 offers higher rentals of $c in perpetuity, but only after a gestation period of T years. This delay might result not only from technology in project 2, forestry and mining for example, but also from the need to allow the market to ripen. (page 861)

As Bentick views the matter, the value of the site after T years, in the absence of taxes, would be $1/r if the site were devoted to the first project, and $c/r if it were devoted to the second project, where r is the interest rate. I would assert, on the contrary, that the value after T years would be the same irrespective of the use to which the site had been put. If the delay were caused by the need for the market to ripen, then the value would be $c/r after the market had ripened. If the reason for the delay in returns was that T years were required to put improvements in place that were needed for the flow of returns to begin, then the value of the site would be the larger of $1/r and e^{-rT} c/r. In either case the value of the site would be the price at which it would sell if it were bare.

If the current market value of a site is

understood to mean the price at which the site would sell if it were not committed to any particular activity, then the value of the site has no necessary connection to the present value of the future returns in an activity to which someone committed the site in the past. The value of the site, understood as the sale price if the site were bare, may be conceived as the highest present value of streams of returns that begin with bare land today. Such streams might look quite different than streams that were optimal starting from bare land at times in the past.

When the value of land is defined independently of how the land is actually used, not only is land value closer to something that could actually be observed, but also the amount of the tax on a given site under a land value tax is independent of how the site is used, and therefore the tax is neutral.

REFERENCES

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Mills, David E., "The Non-Neutrality of Land Taxation," *National Tax Journal* (March, 1981).