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State Farmland Preferential Assessment: A Comparative Study

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Abstract. Since 1956, states and local governments have expressed interest in preserving agricultural land through various tax programs. These programs encourage landowners to continue farming, both to preserve the production of food and to preserve a rural link within the region. These programs begin in the 1950s with state legislation centered on the provision of reduced taxes on farm real estate. As time progressed, these programs expanded throughout the United States and are now established throughout the nation. However, the benefits, terms, and penalties differ between states. This paper summarizes the various programs that are currently in place.

1. Introduction

It has been six decades since state governments began to develop alternate tax schemes for farmland. These systems, often referred to as use-valuation taxation, provide that farmland taxes be based on agricultural value, whereas conventional property taxation employs the highest and best use-valuation. Over time, this expectation has spread such that all states now provide some property tax relief to agricultural land.

These strategies evolve as the child of several constituencies. As a result, considerations of success are mired in group expectations. This point gains clarity over time as other landowners attempt to enter into similar type of tax treatment. In particular, there exists mounting pressure to include open-space land, forestland, and wetlands in these lower tax categories. While some states offer special tax status for some non-agricultural land, it is not the case in all states. By reviewing the literature and statutes on the farmland differential tax policy, it is possible to evaluate such policies and the accompanying rollback legislation, thus providing guidance to future tax policy.

A primary goal of use-valuation is to promote the economic feasibility of farming by reducing costs and increasing profitability. A second goal is to

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stall development. By reducing the holding cost of farmland on the urban fringe (via lower property taxes), this force is mitigated as a development motivation. It is feared that rather than preventing development and increasing farm profitability, differential assessment benefits may be accrued to speculators. These speculators can delay development, at a lower holding cost, and time the market for development. As a result, a third objective of current use-value taxation is the related issue of recapture tax policies.

The literature challenges the expectations created by these policies. Although differential taxation promotes agricultural viability in an attempt to retain agricultural land, it is questionable whether these programs are effective in their efforts to stall development (Gardner, 1977). Researchers contend that when successful, these objectives are best accomplished if use-value is implemented in conjunction with other preservation programs (Parks and Quimio 1996). These additional programs include state grants, transfer of development rights, and purchase of development rights.

The creation and development of differential assessment begins in 1956 in Maryland. It is designed to reduce the amount of money farmers are required to pay in local real estate taxes. The language of Maryland's differential taxation law is unambiguous: it strives to prevent the forced conversion of farmland to more intensive uses because of economic pressures created by highest and best use assessment. Differential assessment requires local officials to assess farmland at its agricultural use-value, rather than its real fair market value, which is generally higher. As previously outlined, use-valuation provides two benefits to farmers. The initial benefit can help farmers stay in business by reducing their cost basis (through lower property taxes) and reduce regional cost differentials by taxing land at similar basis throughout a state. The second benefit eases development pressures and sprawl that may force the farmer to sell their land prematurely.

As agricultural land is developed, it is typically the case that property values rise. New residents and businesses move to rural areas. While the tax rate may not rise, assessments rise in reflection of alternate uses presented by development. Tax rates based on the converted value of land as residential or commercial real estate do not reflect the current use of the land, nor the farmers' ability to pay. Taxes based on the use of the land are designed to protect farmers from this dilemma.

Higher property tax payments reduce the competitiveness of urban fringe farmers. To create a fair and level playing field between urban fringe and rural farmers, proponents of use-valuation argue that input costs need to be equalized (as best as possible). In response to the equilibrium pricing of commodities, use-value creates more uniform input cost regarding property taxes, thus reducing the cost disadvantage at the urban fringe.

This paper seeks to review the use-valuation programs. It will provide a concise guide as to the various differential assessment programs in place

throughout the nation. This paper concludes with an evaluation of one possible outcome created by this taxation strategy.

2. Differential Assessment

R Differential assessment typically involves (1) reducing tax rates applied to farmland so that taxes are assessed only for certain services, (2) reducing the assessed value of resource land to a percentage relative to urban land, or (3) assessing the value of resource land based on its use-value and not its value as urban development. There are two forms of differential assessment: preferential assessment and restrictive agreement or contract assessment. There are three variants of preferential assessment: pure preferential assessment, preferential assessment with conveyance or use penalties, and deferred assessments with rollback penalties.

Pure preferential assessment centers on the productive value of resource land. This value is established by state agencies. There is no penalty for converting resource land to urban development. There is no penalty for idling the land once it has been designated for preferential assessment. Since there is no direct penalty for conversion, enrollment in pure preferential assessment programs is popular among land speculators. It is notable that this method is most common in rural states that lack extreme speculative advantages.

The creation of penalties is designed to mitigate the speculative aspects of pure preferential assessment. Preferential assessment is not a mandate upon the farmer, it is an opportunity. As a result, when accepted, terms are also accepted. These terms include a penalty assessed when the use changes. In the clearest fashion, this occurs when farmland is developed. These penalties may include the accrued benefits received (in some cases with interest) or a portion of the sales price as the property is converted and sold.

A more complex program requires landowners to enter into long-term contracts with government. Under these agreements, the government and the landowner enter into a contract in which the landowner agrees not to develop the land for a fixed period in exchange for an agreement to assess the land on the basis of its value as agricultural land. Contracts are canceled if development occurs. The owner is then assessed a penalty, and or accrued taxes. This program realizes that differential tax policy simply defers taxes. However, the time frame helps guide the deferral length.

3. Use-Valuation of Farmland

The crucial question addressed in reviewing use-value taxation is whether it accomplishes its objectives. While considering farm taxation goals (improving agricultural cost structures, altering sprawl, and constraining the

benefits of speculation), it is crucial to view the criticisms. Often cited criticisms of use-value assessment include (1) the adjustment to the cost function is minimal, thus limiting the impact of the tax reduction, (2) the efficiency sacrifice created by the misallocation of resources, (3) the spillover cost to other landowners who subsidize the lost revenues and (4) the possibility that the benefits of use-value accrue to non-farmer landowner who use the benefit to time development objections, these issues do not clearly favor uniform property taxation.

While tax savings on the urban fringe are considerable, use-value policy holds limited impact on an aggregate basis. Agricultural land use decisions are largely dependent on national and regional considerations. Yield, crop prices, federal subsidies, and international trade impact the producer. These are issues of revenue and pricing. State farmland protection programs have a limited impact (Hirschl and Bills 1994). One factor is the limited impact taxes have on the cost structure of farming in rural settings (Kashian and Skidmore 2002). However, on the urban fringe, traditional property tax methods raise the per bushel cost well beyond the market price (Iowa State University 2003). It can be argued that use-value is successful as utilized in developing areas.

According to the 19th century social reformer, Henry George, a tax that appropriated all land rents would provide the correct incentives for landowners to use their land in the most productive manner and would eliminate the need for all other taxes (Ladd 1998). Since a tax on income distorts efficiency and individual economic decisions (utility maximizing personal behavior may be modified to reduce the tax implications), it is attractive to consider the land tax as an efficient solution. However, a tax on land distorts the timing of development decisions by changing the window of development to take into account additional holding cost issues. This also causes a welfare loss to society. In order to justify tax rates, landowners must convert land to its "highest and best" use in order to be a profit maximizing investor.

Like all assets, land yields a stream of marketable services and thus a stream of income. For example, land yields a stream of agricultural output (bushels of corn), generating a stream of income for the farmer. Similarly, a parking lot in the city yields a stream of parking services, generating a stream of income for the parking firm. When a landowner grants the rights to use his land to another individual, he charges land rent. The market value of land equals the present value of the stream of rental income generated by the land. As the rent generated by the asset increases, so increases the value of the asset. As a result, it is reasonable to expect that land gravitates to the highest generator of revenue. As long as revenues generated by agricultural products remain below the revenue generated by other uses, land will convert to development. Food security advocates argue that farmland demands protection since as farmland disappears, agricultural products will rise in

price, due to reduced supply. However, with commodity (corn, soybeans, wheat, etc.) prices currently low, this argument currently lacks momentum.

In the economic marketplace, a reduction in supply will lead to higher prices and, thus, a higher present value rent in farmland. This, it can be argued, will rectify the development pressures created by low rents. This can be modeled through the history of the Corn Laws. However, this argument is dependent on a static agriculture industry. Increases in yields can mitigate the reduction in land by garnering efficiency in the production function. As a result, reductions in highly productive cropland have been accompanied by decreases in commodity prices through efficiency gains.

In addition, the consideration of rent excludes the spillover social benefit of agricultural land to the community. While not strictly limited to farmland, a variety of papers address the broad concept of amenity value of open space (Kline and Wichelns 1996; Beasley, et al. 1986; Ready, et al. 1997; Kashian and Skidmore 2002). Any calculation of rents omitting the externality value (or costs) of farmland may not reflect the highest and best use.

A common argument against use-value assessment is the consideration of fairness. Ultimately, any decrease in property taxes for one party implies an increase in taxes upon another. As a result, decreases in agricultural taxes imply a tax shift to homeowner and business properties (Boldt 2002; Kashian and Skidmore 2002). When it is noted that over 60 percent of all private land in the contiguous United States is farmland and ranchland, a reduction in taxes would appear significant. However, agricultural real property taxes are only about 3 percent of total real property taxes in the United States. This is consistent with the fact that agricultural real estate constitutes only 5 percent of all real asset value in the U.S. (Wunderlich 1997). As a result, this tax shift is minimal. In addition, there is a positive relationship between cropland and the value of residential properties (Irwin 2002). As a result, it is argued that homeowners are returning the positive externality provided by the farmer.

Finally, it is reasonable to consider the role of use-value taxation on the speculator/investor. Investors are provided an opportunity to purchase agricultural land and withhold it from the market at a lower holding cost (Blewett and Lane 1988). However, by providing an opportunity to delay development to gain a higher return, the community may have an opportunity to plan infrastructure in anticipation of this development. Finally, it is contended that the design of development is an influential component in the impact on development of public finance. Issues such as storm water control and development style are factors communities can remedy through zoning and planning. While the quantifiable findings are contested, there exists opportunities to limit the harmful aspects of development.

4. State Comparisons

While the use-value property taxation scheme is in place in all 50 states, there are differences in the application of the benefit. As a result, a summary of state preferential tax assessment laws is of the essence. Table 1 provides an overview of the various programs made available to the citizen, the farmer and the investor.

Table 1. Summary of State Preferential Tax Assessment Laws

State	Preferential Tax Assessment Only	Preferential Tax Assessment with Deferred taxation and/or Recapture Term
Alabama		3 years recapture
Alaska		7 years plus Interest
Arizona	Use-Value	
Arkansas	Use-Value	
California		10 years plus cancellation fee (based on rolling contracts)
Colorado	Use-Value	
Connecticut		10 years (conveyance fee: begins at 10% in year one and 1% in year 10)
Delaware		10 years
Florida	Use-Value	
Georgia		10 years
Hawaii		10 years
Idaho	Use-Value	
Illinois		10 years plus interest
Indiana	Use-Value	
Iowa	Use-Value	
Kansas	Use-Value	
Kentucky		2 years
Louisiana	Use-Value	
Maine		5 years plus interest
Maryland		5% transfer tax if 20+ acres, 4% if less, 3% if less and with improvements.
Massachusetts		10 years (conveyance fee: begins at 10% in year one and 1% in year 10)
Michigan		7 years
Minnesota		3 years
Mississippi	Use-Value	
Missouri	Use-Value	
Montana	Use-Value	
Nebraska		3 years plus interest
Nevada		7 years
New Hampshire		10 % use change tax
New Jersey		3 years
New Mexico	Use-Value	
New York		5 years plus 6% interest (8 years if outside an agricultural district)

Table 1 Continued.

State	Preferential Tax Assessment Only	Preferential Tax Assessment with Deferred taxation and/or Recapture Term
North Carolina		4 years plus Interest
North Dakota	Use-Value	
Ohio		3 years
Oklahoma	Use-Value	
Oregon		
Pennsylvania		7 years plus interest
Rhode Island		10% of market value if in the first 6 years, then declines by 1% per year until 15th year is 0%
South Carolina		5 years
South Dakota	Use-Value	
Tennessee		3 years
Texas		5 years plus interest
Utah		
Vermont		20% of value
Virginia		5 years plus interest
Washington		7 years plus interest (expires in 8 th year)
West Virginia	Use-Value	
Wisconsin		2 years
Wyoming	Use-Value	

There are several policy variations among the states. Many states do not have any penalty for conversion while some place large penalties on development. Note that many of the rural farm states (Colorado, Kansas, Indiana, Iowa, Missouri, Montana, North Dakota, Oklahoma, South Dakota, and Wyoming do not have recapture penalties). Since development pressures are often a product of urban sprawl into the countryside, this is a reasonable strategy. Stable, or even declining populations, do not demand a dramatic expansion of the housing or retail stock. Other states choosing not to recapture include many southern states (Arkansas, Florida, Louisiana, Mississippi, and West Virginia) as well as Arizona and New Mexico.

On the other hand, conveyance fees seek to recover the foregone taxes and share in potential appreciation. Common in New England area (Connecticut, Rhode Island, Massachusetts, Vermont and New Hampshire all provide for some form of conveyance fee structure), these fees often collect 10 percent of the market value of the converted property. In California this fee is 12.5 percent of the market value while Maryland assesses up to 5 percent of the value.

Pure recapture strategies, based on foregone taxes, range from two years to ten years. Wisconsin and Kentucky base recapture on the prior two years. Ten-year recapture is common in urban states. Delaware, Georgia, Hawaii, Illinois, and Oregon collect deferred taxes up to ten years. The remaining states employ rollback periods between three and seven years. These strate-

gies can succeed only if land appreciation is slow. With escalating land prices, this expense is factored into the development cost. As a result, increasing income, population, and changing tastes drive the demand for development. As this demand increases, so does the conversion of farmland into developed real estate. Price appreciation bolstered by increased demand compensates for accrued taxes, interest and penalties.

The differing approaches to use-valuation appear to follow a reasonable pattern. States with large tracts of farmland are not overly active in discouraging development. Use-value taxation serves as a method of improving the farmer's income statement by reducing one expense. More urbanized states, however, look to this program to assist farmers and thwart development. By raising the cost of conversion, penalties appear to raise the cost of development to unprofitable levels.

Return on Investment

The issue of penalties is initially analyzed according to the return on investment. There exists a public policy concern that speculators can purchase farmland, accrue the tax benefits of use-value taxation, and time the market for development at a profit. This concern is not only a valid consideration, but it is central to all investments.

One possible constraint on these investors is the creation of penalties that will prevent this from occurring. However, when considering the return that the speculator requires, there is a distinct distortion created by recapture taxes. As speculators enter the market for farmland (given a fixed expected rate of return), the price of developable land will rise. While it could be argued that speculators will avoid investing in farmland if the penalties are extremely high, this factor is diminished by the scarcity of land at the urban fringe. While raising the cost of land in Iowa would clearly slow development, this may not be true on the urban fringe.

Rather, the strategy is likely to create two outcomes. First, land not on the urban fringe that is enrolled in a tax deferral program becomes extremely attractive for immediate development. This limited supply will lead to increased prices. Holding demand constant, price will rise in reflection of the decrease in supply. This will increase the value for existing owners, but reduce consumer surplus by creating non-competitive prices. Second, it will produce segregation in the market for new housing.

Accumulated tax liabilities, plus penalties, then will preclude many consumers from that market. In effect, a two-tiered housing market will develop and there will be a market for wealthy new homeowners and less wealthy used homeowners. While this market has always existed, this policy exacerbates the situation. The concept of the heterogeneous community is further thwarted by this strategy.

Tax Considerations

A formalized willingness to pay equation shows that capital gains tax considerations do not affect land use decisions (Simpson 2002). Simpson develops the speculators profit maximization equation with differentiated taxes.

Land conversion occurs when the benefits of development and agriculture are maximized. As the benefits of development rise, the opportunity cost tips away from agriculture and towards development.

This result is consistent with Shoup (1970). In this model, development occurs at time T, where the growth rate for developed land no longer exceeds the sum of the costs of holding agricultural land.

- $V(T)$ = Value of land at time T
- $V'(T)$ = Growth in the value of land at time T
- i = Interest rate
- a = Assessed value
- a^* = Use-Value Assessment
- where $a > a^*$
- r = Property tax rate
- $V'(T)/V(T) = i + (axr)$

This initial equation provides that the interest rate is the return that could be produced if the wealth were not held in land. The “highest and best use” property tax rate is the operating cost of holding a property. Property is developed the aggregate costs of holding undeveloped land exceeds the growth rate in its developed form.

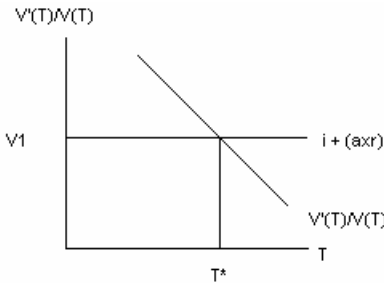


Figure 1. Time to Development

The equilibrium conversion occurs at time T^* when the rate of increase in the property’s post-development value equals the sum of the cost of holding

farmland (Figure 1). Use-value policies add a wrinkle to this consideration. When property taxes decrease, the growth rate of the developed state must be smaller at the time of development (Kashian and Skidmore 2002). This moves the optimal time of development further out to T^{**} (Figure 2). When there is an expectation of a recapture or conveyance fee, this cost is built-in to the equation as a cost. This impacts Figure 2 by moving V_2 up (near or at V_1) and shorting the period to development.

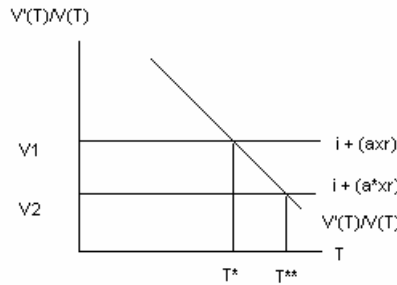


Figure 2. Time to Development with Use Assessment

Recapture taxes must be recovered in the marketplace. As a result, the deferred taxes will reappear in development costs to the new homebuyer. In addition, any penalties, or interest will attach themselves to the cost of the lot. The choice of development is a comparison of the opportunity costs of holding land for agriculture versus development. As the demand for new housing rises, it will ultimately create market conditions that will eliminate the discouraging effects of recapture.

5. Conclusion

The primary criticism of Differentiated Taxation continues. Without additional complementary programs, such as income enhancement, use-value is simply a strategy to time the market. In addition, it compounds the situation by raising the cost of development. Parties promoting the extension of differentiated taxes to other classifications of land (forest, open space, wetlands, etc.) need to take note of the limitations and methods presented. They need to anticipate the strategies available.

Several strategies appear in this process. The first set of strategies exist for the speculator. One would be to quickly convert farmland before onerous penalties accrue. The second is to hold the land throughout the penalty period (often 10 years). Once the maximum level of penalty is accrued, the profit maximizer will then hold the land for several penalty free years, while

the aggregate market value reflects a price that includes penalties. At that point, the speculator will develop the property in a market that witnesses shortages in developable real estate. A third strategy is to hold the land until the market values cover the accrued taxes. Under any scenario, the limited quantity of developable land should catch up with the taxes and penalties. However, these taxes and penalties are not immediately borne by the speculator.

A second set of strategies exist for the government. One strategy is to develop greater use of the purchase of development rights. The programs are numerous in design and application. In this fashion, property will relinquish its development potential, while the property rights of the owner are protected. A second strategy concentrates on the income side of farming. Subsidies to make farming a more profitable enterprise will prevent conversion and should be considered.

It is this consideration that the proponents of use-value should work to rectify if they wish to constrain development in the long-run. The simple application of use-value assessment, while a good first step, is ultimately a stalling technique rather than a preventative action.

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