

TAX SHIFT
SEQUENTIAL TO A LAND-BASED PROPERTY TAX
SYSTEM IN SALEM, OREGON

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ABSTRACT

The Portland based Geonomy Society conducted a study of *tax shift* in the Salem metropolitan area, with the aim of illustrating how a reform of the state's property tax system might be implemented. Measure 5, Measure 50, and the Enterprise Zone program all place limits on the growth of individual assessments as well as caps on tax rates. The cumulative effect of these tax initiatives approved by Oregon voters since 1990 is a shift in tax burden from some classes of property onto others. Reforming the property tax system would first correct the assessed value distortions caused by tax limitations currently in effect, and secondly introduce a graduated land-based tax system that targets land rent as the legitimate source of local government revenue.

The study design employs a two-step tax simulation process. First, individual property assessments are changed from the current taxable values to true market values, allowing an examination of tax burden and revenue shifts that accompany a departure from the normal practice of applying uniform tax rates to current full market values. Secondly, a split rate **land value tax** is applied to the true market land and building assessments. Differential-rate tax outcomes are compared to conventional tax outcomes to ascertain the direction and amount of tax shift that would occur in a transition to LVT. The data base consists of 70,000 tax lots, with land use, location and valuation variables provided by the Marion County Department of Assessments.

Study results reveal the disproportionately high tax burdens that accompany current property tax limitations: on central business district developed parcels, lower value locations, and residential properties in general. A change to true market assessments and land-based taxation is shown to be less punitive to owners who undertake substantial capital investments—who put their land into production or use land more intensively. The greatest benefits accrue to multifamily and smaller lot residential properties, as well as centrally located fully developed sites. Conversely, LVT tax simulations demonstrate upward tax shifts associated with vacant and underutilized sites, especially those in central locations.

Owners of all real estate, including owner-occupied residential properties, realize land rent as long as site values continue to rise. Land rent capture rates as well as the land price-dampening effects of LVT are simulated by extrapolating observed home price increases over a hypothetical holding period and modeling the tax effects on speculative gains.

The study questions assessment practices that tend to adjust building values on developed sites roughly in proportion to land value increases, and devalue “excess” land on large-lot parcels. Both practices weaken the incentive effects of LVT. The question could also be raised as to whether industrial and some commercial sites are undervalued, thus shifting added tax burden onto residential sites.

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TAX SHIFT - SEQUENTIAL TO A LAND-BASED PROPERTY TAX SYSTEM IN SALEM, OREGON

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EXECUTIVE SUMMARY

In 1990, the Oregon state legislature passed Measure 5, a law limiting increases in property tax assessments. This began a succession of laws further limiting growth in tax rates and individual assessments. No longer are property taxes determined on the basis of true market value (the actual sale value), but rather “taxable value”. Over the ensuing years, the effect of these limitations has been a cumulative shift in tax burden amongst properties within taxing jurisdictions. Some owners pay less than they would if the tax rate were applied to their property’s true worth in the real estate market; others pay more. These tax shifts, indicative of favorable treatment for some and added burden for others, amount to a distortion of Oregon’s property tax structure.

The purpose of this case study is to examine tax burden shifts that would accompany: (i) a change back to real market value assessment, and (ii) a reform of the present tax system from a single tax rate applied to land and improvement assessments to a split tax rate, the higher rate being applied to land values.

In Oregon, real property must be assessed on the basis of two separate appraisals: land, and improvements attached to the land. Constitutional limitations mandate the taxation of both components at the same rate. It can be argued that a market based land value tax (LVT) would not only rectify the distortions caused by inequitable tax limitations, but would dampen the growth of speculative land prices and discourage urban sprawl by rewarding the more intensive utilization of infill sites.

Property Tax Limitations in Oregon

Property taxes comprise about 31 percent of all state and local tax revenue in Oregon. The second largest tax in Oregon, the property tax provided \$4.8 billion in the 1995-97 biennium.

Measure 50, enacted in 1997-98, constitutes a first-time departure from the just practice of assessing property at true market value. Besides reducing taxes, it caused the structure of the system to change in three ways:

1. It replaced most tax levies with permanent tax rates.
2. It recalled the assessed value of every property in the state to 90 percent of its 1995-96 assessed value or real market value.
3. It limited the future growth in each property's assessed value to three percent per year.

In one single year, total taxable assessed value declined 12 percent while real market values actually increased 10 percent. In 1990 Oregon voters passed Measure 5, placing limits on levy rates that remain in effect under Measure 50. The cumulative effect is a distortion of reality and a shift in tax burden from properties that are growing rapidly in value (largely due to location and amenity) onto properties not experiencing high increases (usually in less “desirable” locations).

Salem Metropolitan Area

The Salem-Keizer metropolitan area, situated between Portland and Eugene in the mid-Willamette Valley, falls within Oregon’s “Silicon Forest”. During the period 1990-97, the population of Salem City increased by 15%, and Keizer City increased by 29 percent. The area within the Salem-Keizer urban growth boundary (UGB) is projected to increase during 1995-2015 by 32 percent, to 244,200. Much of metropolitan Salem’s employment growth is occurring in two business zones, both featuring property tax abatements for qualifying industries under state enterprise zone legislation.

Concurrent with high population and employment growth is an even more rapid development of raw land to accommodate housing, industry, and commerce. High rates of land consumption attributed to raw land conversion near the urban fringe occur despite the availability of buildable sites well within the existing urbanized area including central and suburban zones.

Study Methodology

The primary data file consists of 1998 land and improvement assessments of parcels in the Salem Metropolitan Area, including the municipalities of Salem and Keizer, and unincorporated lands within the Salem Mass Transit District. The Marion County Assessor’s office retains parcel records of real market value (RMV) as well as the taxable values upon which tax billings are currently based. The raw data matrix consists of 60,942 tax lots and 14 fields consisting of location, land use, and valuation variables.

The study methodology incorporates a two-step tax simulation model. The first step models the cumulative tax shift effects of property tax limitations under Measures 5 and 50, both in terms of total revenues collected and tax burden shifts. This is accomplished

by comparing simulated tax outcomes from TAXABLE assessments with RMV assessments. Step 2 consists of simulated tax applications comparing the effects of a land value tax at various rate levels with the conventional tax, utilizing real market assessments under a revenue neutral assumption. The final step combines the effects of steps 1 and 2 to reveal total tax shift. The land tax rate level is expressed as the proportion of the total tax rate that is applied to land assessments. An optimum level might vary from a minor differential such as 55% land tax rate to a large differential approaching 100 percent. This study establishes a 95% LVT as the maximum split rate tax.

Effects of Limiting Taxable Value

Following the compounded roll-back effects of Oregon's tax limitations, the gap between total real market value and total taxable value has grown wider over the years. By 1998, total Salem area taxable assessments were 26% less than RMV assessments. The resulting differences in revenue yield reveal a total annual shortfall of over \$32 million. Parcels in Salem City alone would yield over \$26 million in additional revenue if the tax limitations were not in effect, that is, if real market values were used to calculate tax bills.

Distortions in Conventional Tax Burden

All subsequent tax simulations utilizing real market value assessments are calculated under a revenue-neutral assumption. That is, hypothetical RMV tax rates are derived to produce the same total revenue as the taxable assessment rates. Distortions, then, are illustrated by the difference in tax outcomes on parcel aggregations *within* jurisdictional data sets representing various use or locational classes.

Five out of 19 classes of land use, representing only 3 percent of the total parcels, experience an increase in tax burden when changing from taxable to RMV assessments. These properties, most of which are industrial and other land-extensive uses (homestead, farm, and vacant), benefit most from the existing tax limitations. The vast majority of properties would experience a decrease in taxes accompanying a change to a taxation method based on real market assessments.

By location, the greatest difference in revenue is found in the South sub area, while the least difference occurs in the North sub area. Keizer City appears closest to a real market value outcome. East sub area properties currently pay 4.8% more taxes than they would if the tax limitations were not in effect.

Distortions in tax burden are also shown to vary by developed status. For example, within the Salem central business district, owners of developed parcels pay more taxes under the assessment limitations than they would under real market value, whereas owners of undeveloped parcels pay less. The effect of this particular distortion is a financial reward for not developing downtown sites. The average benefit to undeveloped central sites is a 7.5% decrease in tax burden.

The tax break these few use classes now receive is offset by higher tax burdens that most land use classes must absorb. Considering the type and number of properties affected, the

tax burden resulting from Oregon property tax limitations has clearly shifted onto residential property. The tax distortion amounts to about \$4.9 million in added taxes coming from single family and multi-family parcels.

Tax Shifts Accompanying LVT

The second step in the study design consists of tax simulations comparing the tax burden effects of the split rate land value tax with that of the conventional tax. Applications utilize real market values (RMV) rather than taxable values, as it would be unreasonable to institute a tax reform based on distorted assessments. Revenue neutrality is assumed.

The land-to-total value ratio (L-T-V) determines the direction of tax shift accompanying a change from a conventional RMV tax to a 2-rate tax. In the case of Salem City, any parcel upon which the land assessment comprises more than 30% of the total value will experience an upward tax shift.

In all three jurisdictions, the *single family* class is slightly above the overall 0.30 mean L-T-V ratio, resulting in moderate upward tax shifts. Tax simulations reveal significant differences across land use categories. Because of their comparatively low L-T-V ratios and presumably greater building bulk (measured in floor area ratios), *multifamily* properties experience a decline in tax burden under the 2-rate system, ranging from -36.5% in Salem City to -42.3% in the unincorporated sections of the county.

Retail properties experience an upward tax shift, although on average the trend is a moderate one. The *industrial* category experiences the greatest variation by jurisdiction among all generalized land use classes. Due to extraordinarily low RMV land assessments, industrial L-T-V ratios in Salem are considerably lower than other classes, resulting in a sharply downward tax shift.

Because of their minimal improvements, simulated tax yields from *surface parking lots* increase under the maximum land value tax level by about 120% in the lower value jurisdictions of Keizer and the unincorporated areas, and by over 175% in higher value Salem City. Vacant lots and undeveloped parcels follow the same trend. Natural resource activities, mostly *farms*, experience moderate tax burden increases within the two cities, and a moderate decline in the unincorporated area.

The annual mean tax for all *developed* parcels in Salem City under the conventional system is \$2,550. Under the maximum 2-rate tax, the same parcels would see an average 6% reduction to about \$2,400. In the aggregate, taxes on *undeveloped* parcels would rise from the conventional mean of \$578 to a 2-rate maximum of \$1,671.

Total Tax Shift Accompanying RMV and LVT

Reforming Oregon's property tax system would entail a two-step process. The first step corrects the assessed value distortions caused by the property tax limitations currently in effect. The second step introduces a graduated land-based tax system that targets land

rent as the legitimate source of local government revenue. The course in tax shift that results by combining the two steps, may or may not be unidirectional.

In the instance of *single family* parcels, the change from taxable value to RMV assessments produces a downward shift in conventional tax burden. Then, the change from conventional taxation to land value taxation produces an upward shift. At tax differentials below 80%, single family parcels show an *overall* decrease in tax burden. At the maximum 95% differential tax rate, taxes increase in the aggregate by a modest 4.5 percent. This gradual increase is explained by higher than average L-T-Vs, which may be a function of low land value assessments of non-residential properties, or prevailing low density residential development patterns, or both.

Multifamily properties, because they are over-burdened under current Oregon property tax limitations, and because their L-T-V ratios are less than the overall average, receive a tax reduction under the maximum 2-rate tax, ranging from 8.5% for 2-4 family buildings to 52.2% for larger apartment buildings. *Homesteads*, because they currently receive a tax break under the tax limitations, and because they are land-consuming (resulting in high L-T-V ratios), are subject to a combined 19 percent increase in taxes.

Within the commercial category, some of the highest upward tax shifts occur in *retail* and *auto related* commercial uses. In these cases, the high LTV ratios offset the negative tax shifts that accompany the first-step conversion to RMV assessments. Building-intensive uses, such as *office buildings*, receive a tax reduction under the 2-rate system.

Industrial properties are currently undervalued when measured against RMV assessments, but their generally low L-T-V ratios offset this first-step conventional tax burden increase. Their maximum differential tax savings amounts to 19 percent, in the aggregate. However, because of the wide variation in 2-rate tax shift between jurisdictions, some industrial sites within Salem City can expect a larger tax break.

Due to the high ratio of land-to-improvement value assigned to *vacant lots* and *surface parking lots*, the total tax shift in proportional terms is substantial. In absolute dollar values, however, the additional tax burden is modest—less than the shift experienced by all retail uses. *Undeveloped parcels* in the Salem central business district are subject to a total tax burden increase of 222 percent, given the low tax billings imposed under the conventional tax.

Evaluating Influences on Tax Shift

DISLOCATION EFFECTS OF UNDERVALUED NON-RESIDENTIAL LAND:

Ultimately, the tax shift on any individual parcel accompanying a change to a land-based tax is determined by the entire set of property assessments within a jurisdiction, particularly the value of land relative to buildings. If some land sites are undervalued or overvalued, the tax burden effects will be felt on all other parcels. The L-T-V ratio (.08) for the industrial land use class, for example, appears to be unusually low – especially in the

Salem jurisdiction. Conversely, the unit building values for this class seem high in view of the low floor area ratios observed. If the industrial land and building assessments were adjusted to match the L-T-V ratio of developed property in the commercial class (.27), the tax burden effects on other use classes would change significantly. It is noted that in other metropolitan areas these two classes exhibit similar value ratios.

Single family homes constitute about 85% of the total properties in metro Salem. As previously reported, the total combined tax shift accompanying a change to the maximum land value tax amounts to a 4.5% increase for this class. At the lower LVT rate levels, however, the tax shift is negative. Given the current assessment structure, the tax shift switches from negative to positive at about the 80% LVT level. By way of contrast, the industrial class experiences a change from positive to negative tax shift at about the 90% LVT level. If the *adjusted* assessments were used in a hypothetical tax application, the single family class as a whole would experience a negative tax shift at all LVT levels, while the industrial class would see a positive shift at all levels of a land value tax.

As for the *numbers* of single family property owners affected by tax shifts, the majority would experience a negative shift during the phase-in of the LVT, given the current assessment structure. The balance would tip into the positive range at about the 75% LVT level. If the assessment ratios for the industrial class were adjusted, the majority of single family parcels would not see an upward tax shift until about the 85% LVT level.

DIMINISHED INCENTIVE POWER OF LVT ON LARGE LOTS:

Within the large category of single family properties, LVT impacts are found to be similar on both small and large-lot parcels. The incentive power of land taxation is therefore diminished because tax impacts on residential sites are not commensurate with land consumption and would not produce the incentive to develop more intensively. This is attributed to the standard practice of assigning a lower value to “excess land” on individual large-lot parcels. If land assessments were instead based on standard unit land values (a uniform square foot basis), the L-T-V on the large-lot sub class would double, resulting in a more than doubling of the tax impact observed under current assessments.

LAND PRICE INFLATION DAMPENING EFFECTS OF A LAND VALUE TAX:

If the annual land value growth rates in an urban land market are high compared to the rate of monetary inflation, the cumulative gain over a holding period can be substantial. If the gain remains untaxed, owners *capture* this added value by selling at higher prices. When an owner declines to improve the site, the resale profit from holding that site becomes speculative gain or a windfall, because all the increase in value is derived from land value that is largely attributed to public amenities and locational advantages. By shifting the tax burden onto sites through a land value tax, the community places a damper on the price of land. That is, as the public domain claims a larger share of the rent from land, less value remains for owners to capitalize into higher market prices. Effectively lowering the cost of land frees sites from speculative land holding and opens up new opportunities for development. Conversely, shifting the tax off improvement values enhances the incentive for owners to make capital investments.

Owners of all real estate, including owner-occupied residential properties, realize land rent as long as land values continue to rise. The question as to how much rent is retained by owners and how much is captured through annual property taxes can be answered by extrapolating land value growth rates over a hypothetical holding period and modeling the capture effects of both conventional and 2-rate tax systems.

The annual growth in Salem City single family home prices is estimated at 9.1% per year, with assessed land and building values increasing at the same rate. Over a back-dated ten-year holding period, this results in a land value appreciation of over \$26,000 and a total home equity growth of about \$80,000. The total conventional tax captures 54% of the cumulative land value gain, whereas a 95% LVT captures 62 percent.

This cumulative home equity realized by the average Salem City homeowner exceeds the estimate holding costs including down payment, mortgage payments, taxes, insurance and maintenance, yielding a 1% return on cost. Model results show that the rate of return on cost (ROC) is highly sensitive to changes in property appreciation. That is, a slight difference in land or building growth rates produces a significant difference in ROC, supporting the supposition that the land price dampening effects of LVT could exert considerable leverage on speculative tendencies in the land market. How, then, are land prices effectively dampened?

Most economists studying the effects of land value taxation agree that the marginal tax liability (the difference between the LVT and the conventional tax amount) is capitalized into lower land prices. By using the present year's tax differential to discount the next year's assessed land value, repeating the procedure through successive tax applications throughout the holding period, the simulation model produces a cumulative land value gain of about \$24,000. This slightly lower gain results in a moderately higher LVT capture rate of 66 percent, and a moderately lower ROC of -1.6 percent.

If building assessment increases were held down, closer to the rate of general inflation, and the balance shifted to land value increases, the price dampening effects of LVT would be enhanced. Model results show that the capture rate would diminish somewhat, and the ROC would decline to -12%, indicating that the total cost of ownership over a ten-year holding period amounts to about \$9,000. This change in assessment practice may be more realistic, as it is difficult to conceive of real building values rising at nine percent annually without a substantial movement of structural upgrading.

In conclusion, the split-rate tax captures a larger proportion of land value gain than does the conventional tax, but under a revenue neutral assumption does not capture anywhere near the total gain realized over a holding period. Thus, by capitalizing the marginal land tax liability into lower resale prices and lowering the expectation of speculative returns, the 2-rate LVT helps housing prices become more widely affordable, and still leaves a substantial amount of equity in the hands of the homeowner.

DISTRIBUTIONAL EFFECTS OF A LAND VALUE TAX:

A general measure of fairness associated with a property tax system is the distribution of tax burden amongst property owners. Again, single family parcels can be used to compare the distributional effects under the taxable value conventional tax currently in effect, with the land value tax. Under a conventional tax application, the top decile (10%) of a rank order frequency distribution of tax billings contribute 20.3% to the total tax for this class. The bottom decile of homeowners pay 4.6% of the total tax collection. As an LVT is introduced, the distribution of tax burden evens out, becoming progressively more even as the LVT level increases. At the 95% LVT level, the top decile of homeowners owe 17.2% of the total tax, while the bottom decile owe 6.5% of the total.

Conclusion

Combining the two steps towards progressive property tax reform in Oregon would result in a tax system that eliminates distortions caused by tax limitations currently in effect. The study illustrates the utility of land value in taxation, which is less punitive to owners who undertake substantial capital investments—who put their land into production or use land more intensively. Tax simulations demonstrate the significant upward tax shifts associated with vacant and underutilized sites, especially those in central locations. Lower tax rates on building improvements conversely lower tax burdens on intensively used sites. The LVT also tends to distribute tax burdens more evenly amongst property owners.

In dollar figures, tax shift accompanying reforms is modest. The conversion to a differential land-based tax might be introduced on a graduated basis, increasing from a 55% tax rate on land assessments to a 75% or 95% land value tax. The higher LVT rate levels (simulated in Step 2) are found to have more of an impact on total tax shift than the initial change from taxable value to true market value (simulated in Step 1).

In the final analysis, tax shift outcomes are determined not only by real market values vs. limited taxable values, or by a conventional equal rate tax system vs. a split rate tax, but also by assessment practices. The growth trend in property values is driven by population and employment expansion and the accompanying demand for land and desirable locations—primarily reflected in land values. The practice of adjusting building assessments on existing developed sites roughly in proportion to land value increases can be called into question. It is expected that buildings would *lose* value relative to land as they approach obsolescence. The practice of devaluing “excess” land on large-lot parcels might be re-evaluated, considering that the diminished site values weaken the incentive effects of LVT. The question could also be raised as to whether industrial and some commercial sites are undervalued when compared to residential sites. Genuinely accurate real market assessments would in all probability affect a more equitable distribution of tax burden and strengthen the power of incentive taxation.

CHAPTER 1

PROPERTY TAXATION IN OREGON

Property tax comprises about 31 percent of all state and local tax revenue in Oregon. Taxes are assessed and collected at the county level and distributed to various jurisdictions. In FY 97-98 total property tax revenues were dispersed as follows: ^[1]

| | | | | | |
|-----------|------|-------------------|-----|--------------|-----|
| Counties: | 20% | School Districts: | 42% | Cities: | 23% |
| Colleges: | 3.7% | Fire: | 5% | Other local: | 6% |

Measure 50 Limits: Reduced Assessments

As the second largest tax in Oregon, property taxes provided \$4.8 billion in the 1995-97 biennium. These revenues account for most of local government and about one quarter of school district needs. ^[2]

In 1997-98 Measure 50 took effect and transformed the property tax system. Besides reducing taxes, it caused the structure of the system to change in three ways:

1. It replaced most tax levies with permanent tax rates.
2. It recalled the assessed value of every property in the state to 90 percent of its 1995-96 assessed value or real market value.
3. It limited the future growth in each property's assessed value to three percent a year.

The effect of these changes resulted in lower taxes as total *assessed value* declined twelve percent (21 percent below real market value) while real market value (RMV) increased ten percent between fiscal years 1996-97 and 1997-98. Such growth in RMV continues the six-year trend of average growth exceeding 10 percent. Properties that increased the greatest in value in the last two years realized the largest cuts. For new properties, assessed value is calculated as the market value of the property times the ratio of assessed value to market value of similar existing properties. If the real market value of a property drops below its assessed value, the taxable value is set to the real market value. ^[1]

While operating revenues for taxing districts fell by six percent from FY 1996-97 to 1997-98, taxes imposed to fund bonds grew by 12 percent with voter approval and urban renewal taxes grew by 56 percent, surpassing 50 percent for the second straight year. Measure 50 does not limit local option taxes, or temporary operating levies, and urban renewal taxes, as it applies only to operating taxes. ^[1] Prior to Measure 50, cities were not using their full authority to levy urban renewal taxes. ^[3] Urban renewal taxes are linked to tax increment financing. This allows urban renewal agencies to raise revenue from growth on the urban renewal area's excess or "incremental" value, which is the current amount over the base assessed value set at the time the urban renewal district is established. This excess value is not included in net assessed value on which taxing districts raise revenue. ^[1]

Under Measure 50, taxes from permanent tax rates instead of levies, as well as gap bonds (temporary to implement Measure 50) and pension levies, comprise 81 percent of the total. At 14 percent bond taxes hold the next largest share. Local option and urban renewal taxes represent five percent. The measure required that 1997-98 taxing district revenue be cut an average of 17 percent compared to the revenue that would have been raised under Measure 5. The "constitutional cut" in revenue was reduced to 13.2 percent because Measure 50 allowed local governments to capture revenue from four percent or more growth in new construction from 1995-96 to 1997-98.

Measure 5 Rate Limits: Compression

In 1990 Oregon voters passed Measure 5, placing limits on levy rates that remain in effect under Measure 50. For individual properties, the tax may not exceed \$5 per \$1,000 RMV for school taxes and \$10 per \$1,000 for general government taxes. Using Measure 50, taxes for a property are calculated by multiplying the consolidated tax rate by the assessed value. To test the tax totals against the limits, the total taxes for schools and general government are each divided by the property's RMV. The appropriate limit is then compared to the results.

If property taxes exceed these limits, then they are "compressed" to the limits: taxes for each taxing district must then be reduced. Initially local option taxes are reduced, then the permanent rate, gap bond, and pension levies are reduced proportionately. The revenue loss for the districts is referred to as compression loss.^[1]

Targeted Tax Relief

As in Washington, real property must be assessed on the basis of two separate appraisals: land and improvements attached to the land. Both must be taxed at the same rate, according to Measures 5 and 50. Unlike several other states, taxing authorities may not formulate classes of land based upon usage which are taxed at different rates; Oregon taxes residential, commercial, and industrial property uniformly.

The state legislature, nevertheless, has undertaken in certain instances to establish differential treatment of owners, under the axiom of tax relief. The most direct form of relief is the exemption. Oregon provides for three types of exemptions: full exemption, partial exemption, and special assessment. Full property tax exemptions, treated as expenditures, remove certain property from the assessment roll, excluding them from taxation. Partial exemptions may exempt only improvement value, while land is still subject to taxation. Alternatively, properties may be exempted from the city tax rate but remain liable for all other property taxes. When taxable value is frozen at a particular time and all added value is exempt from taxation, this also falls under partial exemptions. Special assessments are in effect partial exemptions because the assessment process results in a lower taxable value than would be the case if the usual assessment practice were used.^[2]

Among all tax exemptions, the property tax allows the largest share. The aggregate expenditures are estimated at \$14.67 billion for the 1997-99 biennium, which is almost three times the estimated \$5.08 billion actually collected. For comparison, income tax exemptions are estimated to be \$5.18 billion out of \$7.77 billion collected. One of the three largest, the exemption for privately-owned standing timber in western Oregon is \$1.0 billion for this biennium. The Senior Deferral Program accounts for about \$26 million in local property taxes paid by the state in this biennium. To qualify, homeowners must be 62 or over and have a household income of \$24,500 or less. When the owner dies or sells the property or moves, the state must be repaid with six percent interest. This form of tax burden relief is a "people-based" policy.

Owners of agricultural, open space, and timber lands are eligible for *current use* special assessment programs. Beginning in 1995-96 land values are set statutorily by site class, from \$1 to \$720 per acre. The special assessment value is 20 percent of the statutory, giving an exemption of 80 percent. The Western Private Forest Land program accounts for an estimated \$54.3 million in exemptions for 1997-99. This and the Western Small Tract Option program are intended to retain forest land in forest use and to remove the incentive for earlier harvest that annual taxation creates. The stated purpose is to tax forest land "based on the value of the forest land in timber production," and to collect "the majority of the tax ... at the time of harvest." (ORS 321.259(5))^[2]

Another instance where the legislature has used the tax code to influence property investment behavior is the property tax exemptions for multi-unit housing in urban areas and for low-income tenants. The state offers nine different housing exemption programs, totaling about \$19 million in property tax exemptions in 1997-99. Urban multi-family housing is exempt for up to ten years, or longer if government subsidized. Other programs provide exemptions for 20 years or indefinitely. The aim is to increase the affordable housing supply within large cities, thereby increasing densities and rejuvenating economically and socially distressed urban areas.^[2] These last two sets of laws can be construed as "place-based" policies; they target the urban fringe and central cities to affect public benefit outcomes: resource lands preservation and distressed area revitalization.

Two other programs attempt to channel investment within certain areas of business use: the Key Industry Strategic Investment and Enterprise Zone Businesses programs. Centered in the Portland area, four projects have qualified for the Key Industry program. It exempts the assessed value above \$100 million for up to 15 years and amounts to \$21.8 million in exemptions among four high-technology industry projects in the 1997-99 biennium. The first three projects commenced in 1996-97 with \$5.3 million in exemptions.^[2] Measure 50 caused a 200 percent increase in the state's initial estimate of \$8.6 million in exemptions for 1997-99 for the three projects.^[3] The stated purpose is "to allow Oregon to compete with other states for major investment projects by establishing an upper limit on property taxes for a (capital intensive) investment project".^[2]

Differential Impact Issues

Exempting property under Measure 5 rate limitations led to revenue losses for local districts in many cases, assuming tax rates were at the constitutional limits. With Measure 50, exempting property also causes losses, as the permanent tax rates do not adjust in response to changes in taxable assessed value. Revenue shifts may occur when most bond and local option taxes are passed by voters as fixed dollar amounts. These must be paid by owners of all taxable property. Taxes shift to other properties as the removal of value leads to a higher tax rate. Given that nearly 80 percent of all property taxes come under permanent rates, the revenue losses due to exemptions are much larger than the shifts under Measure 50. The loss is even greater now than the shift under the pre-50 system for programs that exempt very large amounts of value.^[2]

Washington's experience with Referendum 47 also falls under such untargeted tax relief. In a state that relies on property taxes for about 22 percent of state and local revenues, near the national average, voters reacted to a 1990 peak in reassessments. Statewide revaluations jumped 16 percent.^[4] After the governor vetoed Republican plans to cap assessments and property tax growth, voters approved the 1997 measure that (i) made a permanent cut of 4.7 percent in the state property tax and (ii) capped increases in the assessed value of properties to the inflation rate. Counties may, however, invoke the "substantial need" clause and raise local property taxes above 1.9 percent in 1998. Indeed, more than half of all 39 counties took advantage of the escape clause in 1998.^[5]

The new law also limited valuation increases of property to no more than 15 percent per year. Known as value averaging, the state's Supreme Court overturned this provision a year after 64 percent of the voters passed it. The Court ruled that value averaging violated the constitution's rule that all real property be taxed uniformly, since those owners whose property appreciated less than 15 percent would pay more to compensate for those whose property appreciated above the limit. Such untargeted tax relief would have shifted \$5.6 million in taxes from downtown Seattle office buildings onto other county taxpayers, for example.^[6]

Farm and forest lands fall under the special assessment class and are taxed on *current use* versus real market value. Since neither land nor improvements on the same parcel may be taxed at different rates, this policy presents a formidable obstacle to the implementation of an alternative taxation system based upon differential rates. Farmland is valued using income generated from comparable properties and is then capitalized into a present value. Farm uses may fall under either of two types: zoned and unzoned. Zoned farm land in farm use qualifies for special assessment without choice. Owners of farms in unzoned farm land must apply for special assessment. The applicant must show a minimum gross income from farm use in three of five years. Only 16 percent of the

15.6 million acres of land assessed at farm use value lies in western Oregon; of the total, 18 percent is unzoned.^[2]

While the state's agency responsible for farmland protection lauds the current use program for land zoned for exclusive farm use, it questions the unzoned farm use program for its effectiveness in Oregon's land use program. "In urban areas, it discourages timely development by lowering an owner's holding costs and encouraging speculation. In rural areas, the requirement to apply for special assessment and meet a minimum income is a disincentive to property owners to rezone appropriate areas for rural residential development and also makes development in exclusive farm use areas more attractive to those seeking a rural home site."^[2] Since exclusive farm use zones can be changed to non-farm use, and unzoned farm owners are free to opt out of the program, reducing assessments for a limited time enables land speculators to profit from the anticipated gain in selling price when the land is converted to other uses.^[7]

As for exemptions that limit taxes on new industries deciding to locate in Oregon, policy makers are now debating whether such subsidies should instead be recast for smaller investments that create more jobs as reductions in property tax on improvements. The Enterprise Zone program, totaling \$45.1 million in 1997-99, allows exemption for up to five years for businesses that locate or expand with a \$25,000 investment or more in a designated area.^[2] Such tax subsidized economic development poses long-term risks to the city's tax base. Where cities market office and industrial sites at lower prices than those for similar sites on the private market, the value of the private land is reduced. This forces property values to fall nearby and elsewhere. Soon the property tax base shrinks.

In Concord, New Hampshire, the state's capital, 2.8 million square feet of commercial and industrial development joined the city of 39,000 people. At the same time, assessed valuation fell by 19 percent over eight years. New competition tended to stagnate property values in older areas. While a community may see tax base increases in one area, it may shudder at declines in other areas. Also, adding industrial uses to office use areas may lower the value of the office buildings. A better incentive for Salem, as Vancouver, BC, and other cities have shown, would be to offer tax breaks for good design. A clear lesson is to invite the tax assessor into development plans.^[8] Such tax base management has shown to breed better economic development, as has reducing the deadweight loss on local economies through lower improvement taxes *city-wide* while compensating for the tax revenue difference by collecting the annual gain in land values that the community largely creates.

Chapter 1 Notes

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CHAPTER 2

THE SALEM-KEIZER URBAN SETTING

Population and Development Trends

The Salem-Keizer metropolitan area, situated between Portland and Eugene in the mid-Willamette Valley, falls within the landscape of Oregon's "Silicon Forest". Population growth in Marion County was the sixth fastest among 36 counties in the state from 1990-97, averaging 2.3% annually. Population increased by 17 percent in that period, compared to 13 percent statewide. The county expects to see an additional 82,600 persons by 2015, a 30% increase from the 271,900-figure in 1998. Migration is projected to account for about two-thirds of the total increase.^[1] Following the trend in recent years, household size in Salem is expected to decline from an average of 2.41 persons in 1990.

Salem City grew by 2.2% annually from 1990-97, reaching 124,200, an overall increase of 15 percent. Keizer City, adjacent and to the north of the capital city, grew at the annual rate of 4.1% during the same period, reaching 28,340 persons, an overall increase of 29 percent. The area within the Salem-Keizer urban growth boundary (UGB) is projected to increase during the period 1995-2015 by 32% to 244,200, or 3.2% annually. At 2.4 persons per household, an additional 24,820 dwelling units will be needed.^[2]

Salem's expanding high-tech and services sectors being in relatively close to Portland, form to augment the growth of the Valley's new industrial base. Having a lower cost of living than Portland's, Salem-Keizer offers wage-earners an income advantage. Service employment is projected to expand by 60 percent from 1995 to 2015, doubling the retail forecast and tripling the government sector.^[2] Keizer experienced the highest climb in median price of new homes within the metro area, from \$106,241 to \$139,914, or 32 percent from 1994-98. Salem averaged a 27 percent price increase to \$128,500, ranging from \$93,538 in central locations to \$156,129 on the west side (in Polk County).^[3] For the past three years, per capita personal income in Marion County has ranked eighth among 36 counties in the state.^[4]

Much of metropolitan Salem's employment growth is occurring in the two business parks, one to the north between Salem and Keizer, and one to the southeast near the airport. Both parks offer property tax abatements for qualifying industries under enterprise zone legislation (see Chapter 1). Salem's second largest non-governmental employer, Mitsubishi Silicon with 1,215 employees, occupies space in both sites. Employment in Salem-Keizer is forecast to continue the previous decade's trend: growing by 2.1 percent per year, or by 53 percent from 1990 to 2015, to a total of 123,000 jobs.

Anticipated new growth is attributed to the expectation of continuing net in-migration. Salem's central business district, while surrounded by new employment in the outlying areas, is not expected to suffer economically, as is the case of downtown Vancouver in Clark County, Washington. Over the past 15 years, however, "service sector employment

has been expanding to the outlying areas along the major arterials of the urbanized area to provide services to new residential growth”.^[5]

Land Consumption Patterns

Concurrent with rapid population and employment growth is the development of raw land to accommodate housing, industry, and commerce. What concerns planners and policy makers is the per capita rate at which raw land is being consumed. In the Portland metro Willamette Valley, population grew by 30 percent during the decades 1970-90; over the same period the urbanized land area, exclusive of protected open space reserves, grew by 91 percent.^[6]

High rates of land consumption due to raw land conversion near the urban fringe occur in spite of the availability of buildable sites well within existing urbanized areas including central and suburban zones. Within the Salem-Keizer UGB, it is estimated that residential development has been occurring on raw land sites at densities of 4.5 to 5.5 units per gross acre, despite opportunities for infill development at 10 units per acre.^[7]

The Oregon Department of Land Conservation and Development maintains that lateral urban growth erodes the opportunity to sustain the state’s natural resource base consisting of agricultural lands, timberlands, and mineral sites. Residential expansion in particular divides remaining semi-rural lands into smaller, less manageable units for resource production. Subdividing activity accompanying rural-to-urban land conversion also raises the cost of infrastructure, and creates conflicts in land use between resource operatives and new residents. Highest rates of land conversion occur in the state’s fastest growing counties.

The growth in annexations within the Salem-Keizer UGB has continued in recent years, while the population size of annexed areas has declined. In 1998, 492 acres were added, compared to the previous five-year average of 102 acres. The majority of annexations occur to the east and south, where in 1997 the average assessed value per unimproved residential acre was \$22,402. The number of lots platted within the urban growth boundary increased from 263 in 1995 to 1,072 in 1997.^[8]

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CHAPTER 3

PRINCIPLES OF LAND VALUE TAXATION

Basis in Economics

The underpinnings of land value taxation stem from concepts established prior to the school of neo-classical economics, founded early in the twentieth century. The French physiocrats, unlike modern economists such as Adam Smith, held that the economy creates wealth through labor, capital, *and* land, producing wages, interest, *and* rent – the annual increase in the land’s value. Neo-classical economists have trivialized land as a type of capital, disregarding its role in economic development. Economist Henry George, in his 1879 landmark book *Progress and Poverty*, argued that the annual increase in the land’s value, described as rent, is largely the result of society’s activities as a whole, and that the public is rightfully the recipient of this yield as public revenue ^[1].

Land rises in value where a new resource is discovered (during a gold rush, more money is made by land developers than by prospectors), where population grows, where technology advances (witness the land values in the various Silicon Valleys), where infrastructure expands (e.g., a new road or sewer), and where society co-operates (e.g., in schools, in policing). Leading economists now recognize that these causes of land value enhancement do not derive from the efforts of individual owners, rather are contributed by the entire community. Hence, a land value levy merely puts publicly-created value in the public treasury for public benefit. Conversely, not taxing homes, sales, and income leaves privately-generated value in private hands.

George, and more recent economists such as the late Nobel winner Professor William Vickrey, maintain that capturing land rent, which stems from public investments, is also the most efficient means of public finance: it has the least deadweight losses, or slow-down effects, on the economy.

Full efficiency thus requires that all such land rents be devoted to the subsidy of these decreasing-cost industries, and the appropriation of these rents by landlords for other purposes precludes the achievement of full efficiency. ^[2]

Land taxation is efficient because it is economically neutral. Since land is essentially in limited supply, or inelastic in economic terms, it does not distort economic choices. It corresponds directly with the benefits imparted by location. Economic distortions occur when land value is redirected to private holding, leaving penalties on new investment. This is the stifling effect of the conventional property tax. Land includes the natural endowments upon which capital and labor become productive. Economic distortions as well as environmental harm occur when these natural resources are under-valued, mispriced and, therefore, misused. According to Alan Durning of Northwest Environment Watch, author of *This Place on Earth*:

Taxes on [land] raise the price of using [it], which tells people to conserve.... Taxes on labor and capital tell businesses and households to scrimp on workers and tools-- ...to practice unemployment and underinvestment. A reasonable tax policy would tax the gifts of nature first and tax labor and capital only as a last resort. ^[3]

George took this reasoning a step further. He maintained that reducing taxes on wages and capital and raising taxes on land holdings would provide easier and broader access to land. Landowners who hold idle lots would, in many cases, find it economical to sell their land at affordable prices. Vacant sites would become productive and raise employment. By enabling the earth's resources to become available *on equal terms to all*, involuntary poverty would be eradicated. ^[4]

In the early 1900s, soon after George's death, two utopian-style communities attempted to apply the land tax ideal. First, Arden, Delaware, and later Free Acres, New Jersey, took similar approaches. In one of its purest forms, the collection of site values is not a tax but a lease in a trusteeship or corporation. An individual or a corporation purchases tracts of land. Incoming trustees or residents do not buy lots, but lease parcels from the organization at rents subject to annual readjustment. Because the community's real estate remains under the jurisdiction of the local county, each property is assessed and taxed as all other property – on the combined value of buildings and land. The corporation pays these conventional taxes. Community members then repay the corporation an annual lease fee calculated on each lot's site value. All structures belong to the lessees, meaning they can rent, sell, or use them as they see fit.

Today, Arden continues to collect land-based lease fees from its members and pay the county conventional property taxes. In Free Acres, as land values rose with the provision of public works (roads, water, electricity, etc.), leaseholders found impetus to privatize; fees eventually began to incorporate building values. That combination led to cost-parity between owning land outside the community and leasing it inside. Its dissolution followed.

Georgist economics spread with the translation of *Progress and Poverty* into several languages and followed George's travels abroad. Hong Kong practices land-only taxation by leasing land to building owners. The notion of lowering taxes on improvements while raising taxes on sites became law in several countries and now three U.S. states: Australia, New Zealand, Taiwan, Denmark, Holland, and Pennsylvania, New York, and Virginia. In 1993, New York State adopted legislation allowing local use of the two-rate system. The stated aim was to stimulate development by increasing tax rates on land and reducing rates on buildings. ^[5] Virginia passed legislation in 2002 that allows cities to exercise differential property taxation.

Starting in 1914, Pittsburgh and Scranton introduced the “graded tax”. Over a 10-year period, the land tax rate increased until it was twice the rate on buildings. Doing so gradually allowed residents and businesses time to adapt, giving it political acceptability. This delayed the benefits, but land speculators offered little opposition since they did not face the sudden effects of the full shift. Such an approach is still considered prudent.

After WWII, when its steel industry plummeted, Pittsburgh expanded its 2:1 land-to-building tax rate ratio. The city watched as 60 new buildings and skyscrapers, valued at \$700 million then, stretch upward in former industrial areas. This privately financed renewal brought 16,000 new jobs to an area that had previously employed 4,000. When many other cities were descending into decay, Pittsburgh's Golden Triangle business district brought nationwide fame. ^[6]

Fundamentals of Land Value

The conventional property tax, analogous to a train with an engine on each end, consists of a tax on both improvements and sites. Since *land value* is attributable to general economic growth and development as well as locational advantages, and is enhanced by public infrastructure, capital projects, neighborhood plans, and land use regulations, -- it is legitimate for local governments to appropriate this community-generated value through taxation. *Improvement value* is attributable to private capital investment in particular land parcels. The public benefit is enhanced by not appropriating owners' investments that stimulate economic growth, wage, and income generation. Since building value is created by the owner's investment, it justly belongs to the owner.^[7]

The rationale for the differential two-rate property tax becomes apparent under urban conditions. In urban areas, land value is primarily site value – the market value generated by the presence of public infrastructure, nearby public and commercial facilities, natural amenities, and accessibility^[8] If annual land value growth rates are high compared to the rate of monetary inflation, the cumulative gain over a holding period can be substantial. By shifting the tax burden onto sites, the community places a damper on the price of land. That is, as the public domain claims a bigger share of the rent from land (economic rent), less value remains for owners to capitalize into market price. Effectively lowering the cost of land frees sites from speculative land holding and opens up new opportunities for development. Not taxing improvement values heavily strengthens the incentive for owners to make property investments.^[9]

While the two-rate tax system has an effect on the price and availability of land, it also influences land use decisions. If land value gain over a holding period remains untaxed, owners *capture* this added value (largely attributed to public amenities and locational advantages) by selling at higher prices. When an owner declines to improve his site, the resale profit from holding that site becomes speculative gain or a windfall, because all the increase in value is derived from land value rather than building value. Under the conventional 50-50 property tax rate, the owner would actually see lower taxes if buildings were neglected or the site remained unimproved, and would face higher taxes if capital improvements were made. In this way the conventional tax system effectively discourages substantial investments and wise land use decisions.^[10]

A tax on improvement values discourages both re-development of old sites and new development on vacant sites. It encourages land holding on the margin, or speculation, given the low cost of retaining land that is not put to its highest and best use. A land-only tax or a two-rate property tax increases holding costs and diminishes speculative land price inflation. Under the conventional property tax, inflated land prices are generally passed onto tenants through higher contract rents. Since the building portion of the tax discourages expansion of housing and commercial space at the margin, the restricted supply creates a greater demand for rentable space compared to expanded supply under a land-only tax. Pent-up demand, especially in high value central locations, keeps rental prices higher than they would be without a building tax.^[11]

Benefits of Two-Rate Taxation

If financial rewards or costs associated with the property tax are sufficiently high in proportion to full economic rent, then “incentive taxation” can affect individual property owners’ land use decisions. A landowner will release a parcel to a buyer ready to make capital improvements or undertake investments that raise the site to its highest and best use – when the annual tax on land approaches the total annual increase in land value. Such expected changes in behavior yield several benefits, as demonstrated in cities that have shifted taxes off of improvements and onto location ^[12]:

As vacant or underutilized sites within developed areas become increasingly costly to retain due to the heavy taxes on land, these centrally located sites will gradually be improved. Over time, *infill development* will help slow the process of land speculation at the urban fringe that leads to leap-frog development and low density development patterns – urban sprawl.

By lowering the tax on property improvements, *redevelopment* occurs at a higher rate, thus replacing obsolete buildings especially in central city locations. Likewise, landowners remodel and utilize idle or underused sites more efficiently. Eventually the net effect is to raise land values commensurate with building values, which correspondingly improves the tax base in the most areas.

Land speculation is discouraged: the holding of unimproved or underutilized property for the purpose of reselling profitably without making substantial capital investments. If the land portion of the property tax were to coincide with the rate of increase in land value, profit to the speculator would be reduced. In economic terms, the owner would capitalize the depletion into a lower resale price. Public acquisitions for the purpose of providing more open and green spaces would become more affordable. Over time, reduced speculation leads to the more *efficient use* of public infrastructure, and reinforces declared land use planning goals and established urban growth management regulations.

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CHAPTER 4

STUDY METHODOLOGY

The Data Set

The primary data set consists of 1998 land and improvement assessments of properties in the Salem Metropolitan Area, including the municipalities of Salem and Keizer, and unincorporated lands within the Salem Mass Transit District. The entire study area roughly coincides with the area circumscribed by the Salem urban growth boundary. Parcel level data is provided by the Marion County Assessor's Office, and includes real market values (RMV) as well as taxable values (TAXABLE) upon which tax billings are currently based.

The raw data matrix constructed for this study consists of 60,942 tax lots and 14 fields consisting of location, land use, and valuation variables. Some fields are recoded into additional nominal variables useful for identifying location attributes; other fields are used to calculate integer variables which further define fiscal measures and areal dimensions such as lot area. Additional fields are aggregations of nominal variables, which combine land use and location codes into fewer categories. The complete list of variable names is found in Table 4.1.

Table 4.1
MARION COUNTY - PARCEL DATA FILE*
FIELD CODES AND NAMES; CALCULATED VARIABLES**

| Assessor's Code | Renamed Code | Variable Name / Recode Calculation |
|-----------------------------|--------------|--|
| LOCATION VARIABLES: | | |
| PROP.ID | ID | Property account number |
| MTL | MTL | Map Tax Lot (Township, Range, Section, Quarter Section...) |
| | SECTION | Township, Range, Section (square mile) |
| | SUBAREA | Combined sections |
| CODE.AREA | TAXDIST | Taxing Districts |
| | UGB | Urban Growth Boundary (corresponds to Transit District #9) |
| | SCHDIST | School District |
| | CITY | City (municipality), or Water District |
| | JURIS | Jurisdiction (combined city and water districts having similar tax rate) |
| LAND USE VARIABLES: | | |
| PROP.CLASS | PROP | Current use of the property |
| | EXEMPT | Tax exempt parcels (PROP prefix = C,R,S,M) |
| PROP.CODE | LUT | Land Use Type (structure type, materials and configuration) |
| | LUC | Land Use Class (combined LUT codes, with similar use characteristics) |
| | MLUC | Major Land Use Categories (combined land use classes) |
| LEGAL.ACREAGE | ACRES | Lot size by calculation from description |
| EFF.ACREAS | USEAC | Useable acreage, if known (mutually exclusive of ACRES) |
| | ACRES | USEAC added to cases with "0" value ACRES |
| | LOTSIZE | Lot size, in square feet (ACRES X 43,560) |
| FIRST.IMP.SEG.ACT.YR | YR_BLT | Year built of the first building |
| FIRST.IMP.LIVING.AREA | INT_SF | Size of the first building, in internal square feet |
| ZONE | ZONE | Land Use ordinance classification |
| VALUATION VARIABLES: | | |
| 98.LAND.APPR.VALUE | LV_RMV | Land value, approximating real market value |
| 98.IMP.VALUE | IV_RMV | Improvement value, approximating real market value |
| | TV_RMV | Total real market value = LV_RMV + IV_RMV |
| 98.M50.ASSD.VALUE | TV_TAXABLE | Taxable land+building value (Appraised value, limited by Measure 50) |
| | LV_TAXABLE | Taxable land value, estimated as: $([TV_TAX / TV_RMV] \times LV_RMV)$ |
| | IV_TAXABLE | Taxable land value, estimated as: $([TV_TAX / TV_RMV] \times IV_RMV)$ |
| 98.TAXLEVY | TAXLEVY | Total tax levied in 1998, by property account |

TOTAL NUMBER OF PARCELS: 60,942

* Downloaded from Marion County Assessor's Office, January 1999

** Raw data fields are outlined; recoded and calculated variables are shaded

Recodes

Land use type aggregations range from 545 finite types (LUT), to 21 general use classes (LUC), to 10 major land use categories (MLUC). Typically, the Assessors' codes are based upon functional use classifications, which may or may not be suitable from a land use planning perspective. Planning classification systems tend towards activity-based criteria. For example, a "medical" functional use type may include both clinics and group care homes. Because of the expected difference in activity generation (e.g., trip generation, parking demands), an activity-based system would probably separate these two uses into commercial and residential classes. The LUC recodes, found in Appendix 4.1a and b, attempt as much as is practical to affect this alteration. Table 4.2 contains the distribution of parcels across land use classes, broken down by jurisdiction. Results show the predominance of single family residential properties throughout the Salem metro area.

Table 4.2
SALEM METRO AREA - FREQUENCY DISTRIBUTION OF PARCELS*
BY LAND USE CLASS, BY JURISDICTION

| LUCode | Land Use Description | SALEM CITY | | KEIZER CITY | | UNINCORPORATED | |
|--------------|----------------------------------|----------------------|----------------------------|----------------------|----------------------------|----------------------|----------------------------|
| | | Number of Parcels | Percentage Distribution | Number of Parcels | Percentage Distribution | Number of Parcels | Percentage Distribution |
| 1 | Single family detached | 25,320 | 84.1% | 7,646 | 86.7% | 7,090 | 80.0% |
| 2 | Multi-family 2-4 units | 956 | 3.2% | 308 | 3.5% | 424 | 4.8% |
| 3 | Multi-family apartments | 636 | 2.1% | 192 | 2.2% | 176 | 2.0% |
| 4 | Multi-family condominiums** | 370 | 1.2% | 34 | 0.4% | 151 | 1.7% |
| 5 | Mobil home park units | 496 | 1.6% | 112 | 1.3% | 336 | 3.8% |
| 6 | Group quarters | 36 | 0.1% | 10 | 0.1% | 2 | 0.0% |
| 7 | Homestead | 66 | 0.2% | 8 | 0.1% | 351 | 4.0% |
| 8 | Hotel | 29 | 0.1% | 1 | 0.0% | - | 0.0% |
| 9 | Retail store | 463 | 1.5% | 60 | 0.7% | 81 | 0.9% |
| 10 | Retail - restaurant, lounge | 172 | 0.6% | 30 | 0.3% | 33 | 0.4% |
| 11 | Commercial services | 56 | 0.2% | 6 | 0.1% | 9 | 0.1% |
| 12 | Commercial - auto related | 207 | 0.7% | 16 | 0.2% | 36 | 0.4% |
| 13 | Office | 578 | 1.9% | 53 | 0.6% | 26 | 0.3% |
| 14 | Public / semi-public building | 295 | 1.0% | 27 | 0.3% | 15 | 0.2% |
| 15 | Recreation facility - outdoor | 27 | 0.1% | 14 | 0.2% | 13 | 0.1% |
| 16 | Warehouse | 436 | 1.4% | 19 | 0.2% | 30 | 0.3% |
| 17 | Industrial | 514 | 1.7% | 31 | 0.4% | 48 | 0.5% |
| 18 | Farm | 69 | 0.2% | 56 | 0.6% | 238 | 2.7% |
| 19 | Infrastruct. & manuf. structures | 3,077 | 10.2% | 754 | 8.6% | 1,099 | 12.4% |
| 20 | Surface Parking | 305 | 1.0% | 12 | 0.1% | 33 | 0.4% |
| 21 | Vacant | 211 | 0.7% | 140 | 1.6% | 67 | 0.8% |
| Total | | 30,121 | 100.0% | 8,817 | 100.0% | 8,864 | 100.0% |

* Parcels with land use codes named

** Count refers to units

Three levels of geographic aggregation identified in the Assessor's raw data consist of UGB (a surrogate for the urban growth boundary), School District, and City / Water District. Appendix 4.1c shows the count of parcels within these aggregations, including their taxable / tax exempt status. The lowest level of geographic aggregation defined in the recoded data set is the survey grid section (SECTION). Most of the Salem urbanized area is focused on the 36 section grids identified as Township 7, Range 3. Appendix 4.1d is a schematic map with survey grid and

section references. Appendix 4.1e illustrates the distribution of total parcels across the 84 square-mile sections shown; Appendix 4.1f is a table showing the distribution of parcels across sections, broken out by jurisdiction. Maps denoting jurisdictional boundaries reveal that the entire Salem metro area is contained within 42 full sections and 42 partial sections, yielding a total land area of about 56 square miles. For summary reporting purposes, results can be abbreviated by aggregating the sections into sub areas (SUBAREA). Five sub areas are defined on the schematic map shown in Appendix 4.1g.

For purposes of computing tax billings, the Assessor makes the distinction between real market value (`_RMV`) and taxable value (`_TAXABLE`), the latter being determined by Measure 5 restrictions. Because the current equal rate taxation system does not apply separate rates to land and improvement values, only the total taxable value (`TV_TAXABLE`) is provided in the raw data file. According to standard assessment practice, this value is multiplied by the total tax rate in the appropriate district to compute the tax bill on each parcel (`TAXLEVY`). The breakout between taxable land and improvement values must be estimated by using the real market values, which are provided in the raw data file. Thus, `LV_TAXABLE` is computed as the land proportion of the real market value, reduced to the taxable level by applying the ratio of the total taxable value to the total real market value. The formulas, which result in value estimations—not exact specifications—are shown in Table 4.1.

Tax Rates

In order to simulate tax applications, a usable tax rate must be found. Because of the multitude of overlapping taxing districts in the Salem metro area, the effect of compounding district tax rates is a multiplicity of different tax rates. Tax simulation procedures are greatly simplified if many rates can be reduced to a smaller number. Using the raw data file, it is possible to calculate an effective tax rate [$(\text{TAXLEVY} / \text{TV_TAX}) \times 1000$] for each parcel. Examining these calculated rates across records sorted by city or water district, some clustering is evident. That is, grouping the records by the `CITY` code, produces similar results for Salem city [01], Salem water district [30], and Salem-Santiam water control district [51]. The calculated rates for all records in these sub areas cluster around the mill rate: 18.53. The same effect is found in Keizer City and the Unincorporated areas.

Table 4.3 shows the outcome from calculating rates for all parcels aggregated by `CITY`. The effective tax rate based on jurisdiction totals is not a precise replication of actual rates, but is sufficient for performing simulations that approximate tax burden effects on groups of parcels. The table also shows numbers of parcels, total revenues, and total taxable valuation by jurisdiction. The recoded variable `JURIS`, then, is defined through this process of combining taxing districts with similar effective tax rates. The number of applicable tax rates is thus reduced to three (see shaded cells).

Table 4.3

**SALEM METRO AREA - CONVENTIONAL PROPERTY TAX REVENUES
AND ASSESSED VALUE OF ALL PARCELS, BY JURISDICTION**

| Jurisdiction | District Code | # parcels | Total 1998 Tax Revenues | Taxable Total Assessed Value | Effective tax rate * |
|-----------------------|---------------|---------------|-------------------------|------------------------------|----------------------|
| Salem City | 1 | 38,754 | 85,699,272 | 4,624,846,371 | 18.530 |
| | 30 | 28 | 142,965 | 7,534,357 | 18.975 |
| | 51 | 18 | 32,767 | 1,773,019 | 18.481 |
| | Total | 38,800 | 85,875,004 | 4,634,153,747 | 18.531 |
| Keizer City | 20 | 2,133 | 3,378,706 | 210,926,961 | 16.018 |
| | 52 | 8,536 | 13,957,550 | 889,228,119 | 15.696 |
| | Total | 10,669 | 17,336,256 | 1,100,155,080 | 15.758 |
| Unincorporated | 0 | 7,256 | 8,808,363 | 687,617,790 | 12.810 |
| | 35 | 71 | 99,597 | 7,427,608 | 13.409 |
| | 50 | 119 | 111,421 | 8,462,566 | 13.166 |
| | 31 | 4,027 | 4,867,951 | 361,459,184 | 13.467 |
| | Total | 11,473 | 13,887,333 | 1,064,967,148 | 13.040 |
| TOTAL | | 60,942 | 117,098,594 | 6,799,275,975 | |

Valid Records

The Assessor's raw data file is not complete, in the sense that not all tax lot records contain positive values for each field code. In cases where requisite variables such as taxable value are missing cell entries in the data matrix, the corresponding records should generally be excluded from sub files that are to be used in tax simulations. A series of tables found in Appendix 1h show the count of null or zero values corresponding to key variables. For example, the variable - real market value (LV_RMV) contains 7,026 records with values of zero. The instance of "missing" values is even greater in the fields containing physical measurements such as lot acreage. There are logical or legal explanations for some zero values; these will be discussed later.

In order to maintain a level of consistency among data subsets and summary tables reporting output results, the authors have chosen to identify subsets of parcels that contain positive values for all of the requisite variables. "Valid" parcels consist of those records having valid (not null, and greater than zero) entries for land value (both RMV and TAXABLE), and SECTION (location) or LUT (land use type), depending upon the analysis being conducted. This truncation of the data set is necessary in order to produce accurate comparisons between conventional and land value taxation methods.

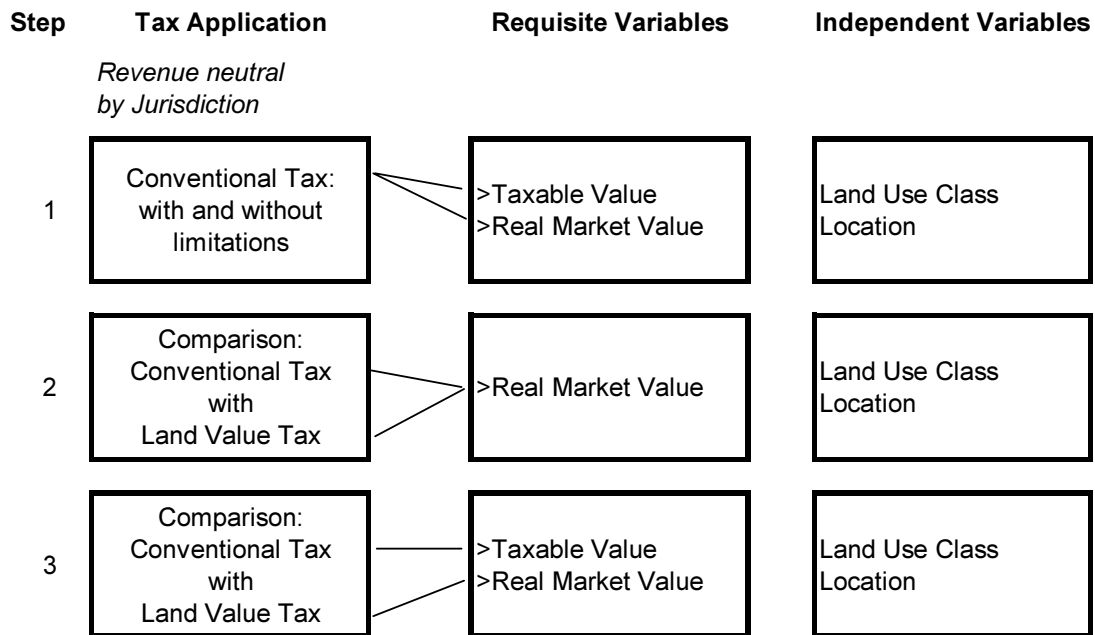
Study Design

The primary intent of this study is to examine the potential property tax burden shifts, from the present conventional tax to variants of the land value tax. Simulated conventional and 2-rate tax applications are performed simultaneously on sub sets of the primary data base consisting of valid parcels, representing different classes of land uses or different geographic locations.

One purpose of the study is to illustrate the effects of property tax limitations under Measure 50 both in terms of total revenues collected and tax burden shift, under the conventional equal rate tax system. This is the first step of the study design, illustrated in Table 4.4. In essence, this step involves a comparison of tax effects employing taxable assessed values (TV_TAXABLE) and real market values (TV_RMV) - as if the statutory limitations on property valuation did not apply.

Table 4.4

SALEM METRO AREA: STUDY DESIGN



Subsequent steps in the research design employ variations of the land value tax compared to the conventional equal rate tax. Step 2 consists of simulated tax applications comparing the effects of the LVT with the conventional tax - utilizing real market values under a revenue neutral assumption. The LVT is always applied to real market values, as broad-based limitations on assessed values would not be proposed under any reform measure. Effects are measured by comparing revenues collected within jurisdictions, -- across land use types and across locations.

The third step combines the effects of steps 1 and 2 to reveal total tax shift. That is, LVT outcomes using real market assessments are compared to conventional tax outcomes using the present assessment limitations (TV_TAXABLE). Revenue differences are determined, using both the land use and location sub sets.

Assessed Valuation

Land Use Subset

A preliminary exercise in the simulation of property tax applications involves the identification of valid parcels and their assessed valuations. Valid records, a subset of the whole data set, are those having positive values for land value (RMV and TAXABLE), and are identifiable by their land use (LUT) or their location (SECTION). Tax rates applied to valid parcels are derived from the entire accumulation of parcels within a jurisdiction. By selecting all parcels, the same derived rates (by jurisdiction) apply to any subset of parcels within the complete set. Total parcel counts and assessed valuations are summarized by city/district and subtotaled by jurisdiction in Table 4.5. Again, there is a distinction between taxable and real market values. It is found that total taxable valuation amounts to 74.3% of the total real market value of Salem area properties, this being the effect of Measure 5 limitations. The total taxable value figures in this tabulation correspond to the total assessed value in Table 4.3, which is the basis for calculating effective tax rates.

Table 4.5

SALEM METRO AREA - VALUATION SUMMARY, BY JURISDICTIONS
TAXABLE VALUES OF ALL PARCELS

| Jurisdiction | District Code | # parcels | Land Value | Building Value | Total Value |
|-----------------------|---------------|-----------|---------------|----------------|------------------|
| Salem City | 1 | 38,754 | 1,334,978,437 | 3,289,867,934 | \$ 4,624,846,371 |
| | 30 | 28 | 902,994 | 6,631,363 | \$ 7,534,357 |
| | 51 | 18 | 498,764 | 1,274,255 | \$ 1,773,019 |
| Subtotal | | 38,800 | 1,336,380,195 | 3,297,773,552 | \$ 4,634,153,747 |
| Keizer City | 20 | 2,133 | 63,375,744 | 147,551,217 | \$ 210,926,961 |
| | 52 | 8,536 | 281,008,001 | 608,220,118 | \$ 889,228,119 |
| Subtotal | | 10,669 | 344,383,744 | 755,771,336 | \$ 1,100,155,080 |
| Unincorporated | 0 | 7,256 | 230,110,708 | 457,507,082 | \$ 687,617,790 |
| | 35 | 71 | 2,701,831 | 4,725,777 | \$ 7,427,608 |
| | 50 | 119 | 2,796,513 | 5,666,053 | \$ 8,462,566 |
| | 31 | 4,027 | 131,766,138 | 229,693,046 | \$ 361,459,184 |
| Subtotal | | 11,473 | 367,375,191 | 697,591,957 | \$ 1,064,967,148 |
| TOTAL | | 60,942 | 2,048,139,130 | 4,751,136,845 | 6,799,275,975 |

REAL MARKET VALUES OF ALL PARCELS

| Jurisdiction | District Code | # parcels | Land Value | Building Value | Total Value |
|-----------------------|---------------|-----------|---------------|----------------|------------------|
| Salem City | 1 | 38,754 | 1,974,768,270 | 4,478,365,780 | \$ 6,453,134,050 |
| | 30 | 28 | 1,065,950 | 7,784,461 | \$ 8,850,411 |
| | 51 | 18 | 584,790 | 1,404,385 | \$ 1,989,175 |
| Subtotal | | 38,800 | 1,976,419,010 | 4,487,554,626 | \$ 6,463,973,636 |
| Keizer City | 20 | 2,133 | 79,849,180 | 178,770,010 | \$ 258,619,190 |
| | 52 | 8,536 | 352,912,800 | 730,098,413 | \$ 1,083,011,213 |
| Subtotal | | 10,669 | 432,761,980 | 908,868,423 | \$ 1,341,630,403 |
| Unincorporated | 0 | 7,256 | 302,905,990 | 570,834,189 | \$ 873,740,179 |
| | 35 | 71 | 3,282,480 | 5,659,534 | \$ 8,942,014 |
| | 50 | 119 | 3,879,250 | 6,983,678 | \$ 10,862,928 |
| | 31 | 4,027 | 165,097,390 | 291,582,750 | \$ 456,680,140 |
| Subtotal | | 11,473 | 475,165,110 | 875,060,151 | \$ 1,350,225,261 |
| TOTAL | | 60,942 | 2,884,346,100 | 6,271,483,200 | 9,155,829,300 |

Valid Parcels

The first cut at developing a valid subset involves selecting parcels with valid codes for land use class. Recall from Appendix 4.1h that 6,817 records do not have values for the variable LUT. Because tax applications must be conducted at the jurisdictional level (each having a separate tax rate), it is necessary to produce three separate tabulations. Appendix 4.2a contains subtotal taxable and RMV assessments by 21 recoded land use classes for Salem City. The two subsequent appendices c and d contain the same data for Keizer City and Unincorporated jurisdictions. Several observations regarding the data will assist in composing the final set of valid parcels, to be used for tax simulations.

First, it is noted that the condominium class (code 4) contains no land values. Because condominiums are sold on the real estate market as units, each count comprises a unit rather than a parcel. By state statute, assessments do not separate out land and improvements (as in other states where each condo unit is assigned a proportional amount of the parcel land value). The building value shown in the table is actually total value, and would misrepresent the summary totals if it were included. As far as land value taxation is concerned, this convention is a short-

coming, and it cannot be circumvented even for purposes of hypothetical tax applications. There is no means by which land assessments can be estimated; therefore, the condo class of residential property must be extracted from the valid parcels subset.

The infrastructure class (LUC code 19) contains an assortment of uses, the vast number of which are manufactured structures to which no land value is assigned. The parcel counts and building valuations are included in the table simply to denote the size of this use class. Again, these records will have to be extracted from the data file in order to accurately reflect separate land and improvement assessments.

Land use classes are defined by notation (LUT code), not by any selection criteria (such as IV=0, to indicate vacant). It is necessary to maintain this convention because of the incidence of tax lot records that in fact have no improvement values but are situated on parcels that do have improvements. There are over one thousand instances of “split” parcels consisting of two or more tax lots (separate ID codes). Because all summary assessment tables and tax applications are based on aggregations of tax lots, the summary statistics do include the combined characteristics of split parcels. Thus, records containing zero improvement values are not extracted from the data file. At this point, the researchers are satisfied that all remaining parcels are valid for tax application purposes.

Extracting the rejected records in the two land use classes (LUC codes 4 and 19) and excluding records with no land values, results in a net total for each jurisdiction. These are the total valid parcels. The process is noted in Appendix 4.3. A grand total of 47,585 parcels, or 78% of the raw data file, is available for tax simulations using land use as the independent variable. Appendix 4.4a, b, and c contain the valid parcels, by jurisdiction. Appendix 4.5a, b and c consist of a summary of assessed valuation of valid parcels, by major land use class (MLUC), by jurisdiction. Table 4.6 is a total valuation summary, by jurisdiction. Applying the effective tax rate corresponding to each jurisdiction (from Table 4.3), a total conventional tax revenue for valid parcels is calculated.

Table 4.6

**SALEM METRO AREA - DERIVED CONVENTIONAL TAX REVENUES, BY JURISDICTION
VALID PARCELS* FOR LAND USE APPLICATIONS**

| TAXABLE VALUE | | | ASSESSMENT | | | TAX | |
|--------------------------|------------------|---------------|-------------------|------------------|--------------------|------------------|--|
| Jurisdiction | # of Properties* | Land Value | Building Value | Total Value | Effective Tax Rate | Conventional Tax | |
| Salem City | 29,997 | 1,224,077,523 | 2,888,808,880 | \$ 4,112,886,403 | 18.531 | \$ 76,215,898 | |
| Keizer City | 8,645 | 317,492,166 | 709,034,111 | \$ 1,026,526,277 | 15.758 | \$ 16,176,001 | |
| Unincorporated | 8,943 | 344,978,706 | 631,708,939 | \$ 976,687,645 | 13.04 | \$ 12,736,007 | |
| REAL MARKET VALUE | | | ASSESSMENT | | | TAX | |
| Jurisdiction | # of Properties* | Land Value | Building Value | Total Value | Effective Tax Rate | Conventional Tax | |
| Salem City | 29,997 | 1,528,437,460 | 3,957,271,590 | \$ 5,485,709,050 | 18.531 | \$ 101,655,674 | |
| Keizer City | 8,645 | 378,239,100 | 837,200,630 | \$ 1,215,439,730 | 15.758 | \$ 19,152,899 | |
| Unincorporated | 8,943 | 424,759,550 | 770,317,090 | \$ 1,195,076,640 | 13.04 | \$ 15,583,799 | |

* Taxable parcels with positive values for land value (both RMV and TAXABLE), and land use type... less condo. units and infrastructure & manufactured structures

Location Subset

The location subset of valid parcels includes those which have positive values for land value, and are identifiable by their location (SECTION). This subset will coincide with the land use subset, but not entirely. There are 6,423 parcels coded for location which do not have land use code designations (LUT); 4,961 of these are potentially valid parcels in that they are taxable and have positive land values. These will be included in the location subset, but cannot be cross-tabulated with land use. Because of these limitations, tax applications will be conducted separately on the two subsets, without cross-referencing them.

Valid Parcels

As reported in Appendix 1h, there are 4,404 records with no section reference. These will be eliminated by default. Location, however, is not the most salient basis for expected variation in tax burden shifts. It is likely that site utilization or development intensity will explain more variation than will location per se. Thus, it would appear useful to break down locations by the one variable most easily obtained: developed status.

Defining parcels or tax lots as developed or undeveloped can be achieved by using the two selection criteria:

$$\begin{array}{lcl} \text{Developed} & = & \text{LV}_- > 0 \quad \text{IV}_- > 0 \\ \text{Undeveloped} & = & \text{LV}_- > 0 \quad \text{IV}_- = 0 \end{array}$$

A total of 4,814 parcels fit the undeveloped criteria; they appear to be fairly evenly distributed throughout the Salem metro area delimited by sections. A cross tabulation with land use class, shown in Appendix 4.6, reveals the type of uses these unused parcels comprise. Two thirds of the class-designated parcels are either nominally vacant (code 21), are farm sites (code 18), or are single family lots (code 1).

Again, tax applications are conducted at the jurisdictional level. When combining jurisdiction with developed status, it is now necessary to produce 12 separate tabulations. Representing each of the three jurisdictions are 4 tables: taxable assessments for developed and undeveloped parcels, and real market assessments for developed and undeveloped parcels. These together constitute the final subset of valid parcels, to be used for tax simulations when using location as the independent variable. A series of 12 tables, found in Appendix 4.7a through l, contains the relevant data. Summaries of these tabulations consist of sections aggregated by sub area, and are found in Tables 4.7 and 4.8. A graphic illustration of the distribution of total assessed value by section is shown in Figure 4.1

Table 4.7

SALEM METRO AREA - VALUATION SUMMARY, BY SUB AREA
TAXABLE VALUES OF VALID* PARCELS

| DEVELOPED | | | | |
|-----------------------|---------------|----------------------|----------------------|----------------------|
| Jurisdiction | # parcels | Land Value | Building Value | Total Value |
| SALEM CITY | | | | |
| CBD | 5,145 | 212,421,261 | 413,713,678 | 626,134,939 |
| Central | 8,191 | 323,621,774 | 774,531,277 | 1,098,153,051 |
| North | 103 | 8,612,249 | 28,279,191 | 36,891,440 |
| South | 12,676 | 485,200,086 | 1,288,927,442 | 1,774,127,528 |
| East | 3,748 | 184,065,219 | 389,855,631 | 573,920,850 |
| TOTAL | 29,863 | 1,213,920,589 | 2,895,307,219 | 4,109,227,808 |
| KEIZER CITY | | | | |
| CBD | - | - | - | - |
| Central | 1,042 | 42,352,164 | 89,529,386 | 131,881,550 |
| North | 7,446 | 272,157,851 | 620,281,466 | 892,439,317 |
| South | - | - | - | - |
| East | 1 | 24,014 | 35,586 | 59,600 |
| TOTAL | 8,489 | 314,534,029 | 709,846,438 | 1,024,380,467 |
| UNINCORPORATED | | | | |
| CBD | - | - | - | - |
| Central | 48 | 1,589,673 | 3,568,857 | 5,158,530 |
| North | 61 | 2,665,423 | 7,270,557 | 9,935,980 |
| South | 636 | 37,996,146 | 69,990,812 | 107,986,958 |
| East | 8,008 | 300,217,705 | 551,779,843 | 851,997,548 |
| TOTAL | 8,753 | 342,468,947 | 632,610,069 | 975,079,016 |

Table 4.8

VALUATION SUMMARY, BY SUB AREA
TAXABLE VALUES OF VALID* PARCELS

| UNDEVELOPED | | | |
|--------------------|--------------------|----------------|--------------------|
| # parcels | Land Value | Building Value | Total Value |
| 335 | 16,540,128 | - | 16,540,128 |
| 772 | 28,734,385 | - | 28,734,385 |
| 60 | 6,222,900 | - | 6,222,900 |
| 1,487 | 45,969,113 | - | 45,969,113 |
| 647 | 24,993,080 | - | 24,993,080 |
| 3,301 | 122,459,606 | - | 122,459,606 |
| - | - | - | - |
| 90 | 2,432,200 | - | 2,432,200 |
| 999 | 27,417,515 | - | 27,417,515 |
| - | - | - | - |
| - | - | - | - |
| 1,089 | 29,849,715 | - | 29,849,715 |
| - | - | - | - |
| 44 | 981,279 | - | 981,279 |
| 36 | 732,880 | - | 732,880 |
| 305 | 8,163,623 | - | 8,163,623 |
| 675 | 15,028,462 | - | 15,028,462 |
| 1,060 | 24,906,244 | - | 24,906,244 |

REAL MARKET VALUES OF VALID* PARCELS

| DEVELOPED | | | | |
|-----------------------|---------------|----------------------|----------------------|----------------------|
| Jurisdiction | # parcels | Land Value | Building Value | Total Value |
| SALEM CITY | | | | |
| CBD | 5,145 | 279,734,440 | 530,706,430 | 810,440,870 |
| Central | 8,191 | 408,562,080 | 1,070,585,530 | 1,479,147,610 |
| North | 103 | 10,766,320 | 35,880,840 | 46,647,160 |
| South | 12,676 | 589,130,110 | 1,856,333,010 | 2,445,463,120 |
| East | 3,748 | 224,573,110 | 471,134,450 | 695,707,560 |
| TOTAL | 29,863 | 1,512,766,060 | 3,964,640,260 | 5,477,406,320 |
| KEIZER CITY | | | | |
| CBD | - | - | - | - |
| Central | 1,042 | 51,056,960 | 107,004,710 | 158,061,670 |
| North | 7,446 | 323,177,410 | 731,154,420 | 1,054,331,830 |
| South | - | - | - | - |
| East | 1 | 28,390 | 42,070 | 70,460 |
| TOTAL | 8,489 | 374,262,760 | 838,201,200 | 1,212,463,960 |
| UNINCORPORATED | | | | |
| CBD | - | - | - | - |
| Central | 48 | 1,921,110 | 4,212,320 | 6,133,430 |
| North | 61 | 3,179,390 | 8,787,640 | 11,967,030 |
| South | 636 | 50,105,270 | 88,453,700 | 138,558,970 |
| East | 8,008 | 366,739,970 | 670,144,910 | 1,036,884,880 |
| TOTAL | 8,753 | 421,945,740 | 771,598,570 | 1,193,544,310 |

REAL MARKET VALUES OF VALID* PARCELS

| UNDEVELOPED | | | |
|--------------------|--------------------|----------------|--------------------|
| # parcels | Land Value | Building Value | Total Value |
| 335 | 23,701,910 | - | 23,701,910 |
| 772 | 37,357,480 | - | 37,357,480 |
| 60 | 8,012,890 | - | 8,012,890 |
| 1,487 | 62,016,430 | - | 62,016,430 |
| 647 | 32,304,180 | - | 32,304,180 |
| 3,301 | 163,392,890 | - | 163,392,890 |
| - | - | - | - |
| 90 | 3,062,010 | - | 3,062,010 |
| 999 | 34,956,670 | - | 34,956,670 |
| - | - | - | - |
| - | - | - | - |
| 1,089 | 38,018,680 | - | 38,018,680 |
| - | - | - | - |
| 44 | 1,257,510 | - | 1,257,510 |
| 36 | 892,970 | - | 892,970 |
| 305 | 13,395,220 | - | 13,395,220 |
| 675 | 19,786,080 | - | 19,786,080 |
| 1,060 | 35,331,780 | - | 35,331,780 |

* Taxable parcels with positive values for land value and section

Figure 4.1
SALEM METRO AREA - DISTRIBUTION OF TOTAL ASSESSED VALUE* , BY SECTION

| | | | | | | | | | |
|------|------|------|-------|-------|-------|-------|-------|-------|-----|
| | | | | | \$34 | | | | |
| | | | | \$8 | \$238 | \$37 | | | |
| | | \$3 | \$148 | \$188 | \$76 | \$16 | \$10 | \$0 | |
| | | \$6 | \$142 | \$179 | \$97 | \$184 | \$105 | \$0 | |
| | | | \$57 | \$343 | \$144 | \$140 | \$112 | | |
| | | | \$53 | \$153 | \$117 | \$209 | \$65 | | |
| | | | \$177 | \$203 | \$212 | \$270 | \$70 | | |
| | \$1 | \$0 | \$213 | \$241 | \$31 | \$208 | \$37 | | |
| | \$2 | \$0 | \$99 | \$270 | \$150 | \$60 | \$158 | \$109 | |
| \$15 | \$55 | \$79 | \$204 | \$238 | \$484 | \$3 | \$48 | \$21 | \$1 |
| \$0 | \$2 | \$71 | \$239 | \$207 | \$118 | \$32 | \$8 | \$0 | \$0 |
| | \$5 | \$84 | \$169 | \$200 | \$134 | \$87 | \$10 | | |
| | | \$1 | \$11 | \$80 | \$127 | \$6 | \$5 | | |
| | | | \$2 | \$3 | \$3 | | | | |

* Real market value, in millions: Quintile distribution

Tax Simulation Methods

Under the conventional equal rate property tax system, each owner's tax bill is prepared by multiplying the total assessed value (TV) by the levy rate, usually expressed as a per thousand dollar figure, or mill rate. In each county the assessor determines the levy rate by dividing the total projected revenues authorized for the various taxing districts by the total assessed value of real estate in the applicable district. To find the mill rate, the resulting ratio is multiplied by 1000.

Under the land value taxation system, the land value (LV) portion of the property assessment is taxed independently from the improvement value (IV) portion, using split rates applied uniformly to all properties. The two rates in the LVT system can range from a moderate differential to a large differential, or a full tax of the land portion. The land tax level is expressed as a proportion of the total tax rate applied to the land assessments. For example, the desired LVT level may vary from a minor differential (such as 55% of the total tax rate applied to land) to a large differential approaching 100 percent.

The two systems of taxation are illustrated in the following example of a \$15 levy rate applied to a jurisdiction having a total of \$300 million assessed value:

CONVENTIONAL APPLICATION:

| | | | | | |
|-----|---------------|-----|---------------|-------------------------------------|---------------|
| LV: | \$100,000,000 | | | | |
| IV: | \$200,000,000 | TV: | \$300,000,000 | $\$300,000,000 / 1,000 \times \15 | = \$4,500,000 |

2-RATE APPLICATION: (using an LVT level of 75%)

| | | | | |
|-----|---------------|--------------------------|-------------------------------------|----------------------|
| LV: | \$100,000,000 | $\$36 \times .75 = \27 | $\$100,000,000 / 1,000 \times \27 | = \$2,700,000 |
| IV: | \$200,000,000 | $\$36 \times .25 = \9 | $\$200,000,000 / 1,000 \times \9 | = <u>\$1,800,000</u> |
| | | | TOTAL REVENUE | = \$4,500,000 |

In the second application, the total levy rate of \$36 is the amount required, when multiplied by the land and improvement ratios, to produce separate rates that will yield the revenue neutral tax of \$4,500,000. This rate is determined by the method explained in the following conversion formulas.

Phase-in Period

There is general agreement among land value taxation proponents that a 2-rate system should be introduced gradually so as to minimize economic dislocation, the impact of an abrupt change in tax billing experienced by owners most affected by the differential tax. A phase-in period allows property owners impacted by higher taxes an opportunity to adjust their property prices gradually downwards. Investment decisions could also be affected. For example, the anticipation of increasingly higher tax burdens may prompt the earlier sale of underutilized property, or may induce investment in building improvements. During the transition period, the rate differential is gradually increased to an optimum LVT level, perhaps short of a 100 percent land value tax. If the object is to capture the full land rent, the existing mill rate would be replaced with a higher non revenue neutral rate to be applied exclusively to land values.

What is an LVT level is subject to a variety of opinions, but tax reformers might aim for a rate differential sufficient to appropriate a substantial portion of the economic rent within a taxing jurisdiction. In terms of visible results, one could also aim for tax incentive effects sufficient to generate evidence of property upgrading and infill development activity. This study assumes the maximum differential to be a 95% land value tax.

In this study, a series of hypothetical 2-rate tax calculations will be run on aggregations of assessed value representing classes of land users. This series of applications will consist of six progressively higher land value tax ratios, as follows:

| <u>Tax System:</u> | <u>Conventional:</u> | <u>2-Rate:</u> | | | | | |
|--------------------|----------------------|----------------|-----|-----|-----|-----|--------------|
| <i>Tax Ratio:</i> | 50% | 55% | 65% | 75% | 85% | 95% | -- LVT Level |
| LAND | .50 | .55 | .65 | .75 | .85 | .95 | |
| IMPROVEMENTS | .50 | .45 | .35 | .25 | .15 | .05 | |

For the sake of brevity, tax simulation results are sometimes reported in summary tables that include only the 55% LVT and 95% LVT outcomes—the minimum and maximum land tax levels. Tables will show comparisons between equal rate applications and the land value tax variations. In this study, 1998 property assessments and tax revenues levied under the conventional property tax system are used as baseline figures.

Conversion Formulas

Both single rate and two-rate tax applications are performed simultaneously on subsets of assessed values, broken out by land use or location. Three different methods are utilized in this study, each having its own purpose. Each is designed to produce conventional tax results and 2-rate tax results, thus allowing a comparison between the two tax amounts and measuring tax burden shift.

- 1. Formula Method** Assuming the 2-rate tax applies to a single local jurisdiction, it is possible to devise a revenue-neutral tax application method that would produce a total revenue outcome equal to the revenue collected under the conventional tax. The formula method utilizes a differential levy rate formula expressed as an algebraic equation which takes into account the conventional levy rate, total land value and total improvement value, and the LVT level desired.

The derived land and improvement rates contained in the 2-rate tax application worksheet are apportioned to match the LVT level. For example, when calculating a 75% LVT, 75% of the total *rate* is applied to the aggregate land value, while 25% is applied to the aggregate building value. The sum of the resulting 2-rate taxes on all sub classes (land use or geographic area) is equal to the sum of the conventional tax. In this study, the revenue derived from TAXABLE assessments is used as the base for revenue-neutral tax applications.

- 2. Derived Rates Method** Once a differential rate is found through the formula method, that rate can be inserted in a spreadsheet to calculate 2-rate taxes on any individual

property or subset of properties within the same jurisdiction. The rates method is useful because the balance of the total assessed valuation within the jurisdiction does not need to be inserted into the tax application.

Derived levy rates for each of the three jurisdictions in the Salem metro area are reported in Chapter 6.

- 3. Iteration Method** This method finds a new differential tax rate that will produce a predetermined revenue that is different from the revenue produced from a conventional tax application. In cases where non revenue neutral applications are required, the target revenue is incorporated into the summation cell of the LVT tax calculations. An inserted trial rate is adjusted to a new level which when applied to all of the assessments, produces the sum equal to the target revenue. This can be accomplished by solving an iteration problem, whereby the solution process performs a succession of trials (or iterations), recalculating the trial rate until the optimum solution is reached.

The iteration method is used only once in Chapter 7, where a subset of property assessments spanning all three jurisdictions is used to find a combined hypothetical tax rate that will yield a known target revenue.

Indicators of Tax Shift

Prior to performing tax simulations, it would be useful to know how the results could be affected by factors that predetermine the outcomes. This eliminates the necessity to follow up the reported results with speculations as to what may have caused unexplained variations in tax burden shifts accompanying the conversion to a 2-rate tax system. Basically, the antecedent variable that determines tax burden shift is the proportional relationship between land and improvement values. This can be expressed as a single measure derived from the assessed values, and can be further examined from the perspective of assessment practices that determine what values are assigned in the first instance. The proportional measure is explained in the following section. A further examination of assessment values and their affect on tax outcomes is found in Chapter 7.

The L-T-V Ratio

The key determinant in 2-rate taxation outcomes is the ratio of land value to improvement value. In this study, the expression of land-to-total value (L-T-V) is adopted as the preferred measure because it is easier to comprehend. This measure of the proportion of total assessed value attributed to land, in effect determines the direction of tax burden shift that occurs on a parcel when transitioning from a conventional tax application to a 2-rate application. The overall L-T-V ratio for all taxable parcels in a given taxing jurisdiction is derived by dividing the summation of assessed land value by the summation of total assessed value. For Salem City, the total taxable land value of \$1.2 billion is divided by the total value of \$4.1 billion (from Appendix 4.5a), to arrive at an L-T-V ratio of .30.

Under the 2-rate system, the breakpoint consisting of the jurisdiction-wide L-T-V ratio determines the point at which tax burden shift occurs. Because land is taxed at a higher rate, any property within Salem City having an L-T-V ratio higher than 0.30 would be taxed higher than under the conventional system; any property on which land comprises less than 30 percent of the total valuation would be taxed lower. The relative proportion of tax shift on any property or aggregation of properties depends upon its L-T-V ratio relative to the overall L-T-V ratio.

Land-to-total value ratios can be calculated using any subset of assessed valuations. Aggregating parcels by major land use class and by sub area will give an indication of expected tax burden shifts on these subsets. Table 4.9A shows the calculated L-T-V ratios broken out by jurisdiction and major land use class. Here it becomes evident that the lowest ratios are found among land uses which typically utilize land more intensively, such as multifamily residential. High ratios are found among land extensive uses such as parking lots and vacant sites. Intuitively, vacant sites should have an L-T-V value of 1. However, over two thirds of the properties designated vacant in fact contain marginal structures, mostly sheds.

Across sub areas, there appears only a moderate variation in L-T-V ratios among developed properties (see Table 4.9B). Perhaps unexpectedly, higher values are evident in the Salem central business district (CBD) than in some outlying sub areas. On the one hand, higher unit land values might be expected in the CBD, but higher building intensity, hence higher aggregate building values could also be expected. Undeveloped parcel summaries are not featured in the table because by definition the L-T-V ratios are unity (a value of 1). Breakpoint L-T-V ratios corresponding to the sum of valid parcels is shown at the bottom of the table.

Another indicator of tax shift, related to the L-T-V ratio, is the incidence of undeveloped parcels. How the 5,450 undeveloped sites are distributed across the metro landscape is one indication of expected tax shift by location. Figure 4.2 shows the frequency distribution of undeveloped parcels by section, expressed as a percentage of total parcels within a section. Locations with high percentages of undeveloped parcels (shaded) can expect to experience higher tax burdens under the land value tax system.

| <i>TAXABLE VALUES</i> | | | <i>REAL MARKET VALUES</i> | | |
|-----------------------|-------------|----------------|---------------------------|-------------|----------------|
| SALEM CITY | KEIZER CITY | UNINCORPORATED | SALEM CITY | KEIZER CITY | UNINCORPORATED |

Table 4.9A

SALEM METRO AREA - LAND-TO-TOTAL VALUE RATIOS, BY MAJOR LAND USE CLASS

| Major Land Use Class | SALEM CITY | KEIZER CITY | UNINCORPORATED | SALEM CITY | KEIZER CITY | UNINCORPORATED |
|-----------------------------|-------------|-------------|----------------|-------------|-------------|----------------|
| Residential - Single Family | 0.33 | 0.32 | 0.37 | 0.33 | 0.32 | 0.38 |
| Residential - Multifamily | 0.15 | 0.17 | 0.18 | 0.16 | 0.17 | 0.18 |
| Residential - Mobile Home | 0.39 | 0.34 | 0.52 | 0.40 | 0.35 | 0.53 |
| Retail | 0.35 | 0.38 | 0.36 | 0.36 | 0.38 | 0.36 |
| Commercial | 0.29 | 0.37 | 0.40 | 0.29 | 0.37 | 0.37 |
| Industrial | 0.15 | 0.47 | 0.50 | 0.07 | 0.46 | 0.50 |
| Community Services | 0.33 | 0.39 | 0.41 | 0.33 | 0.39 | 0.41 |
| Natural Resource Activity | 0.27 | 0.37 | 0.32 | 0.38 | 0.37 | 0.31 |
| Surface parking | 0.86 | 0.91 | 0.85 | 0.87 | 0.91 | 0.85 |
| Vacant | 0.83 | 0.87 | 0.80 | 0.84 | 0.88 | 0.82 |
| TOTAL | 0.30 | 0.31 | 0.35 | 0.28 | 0.31 | 0.36 |

* Valid parcels

Table 4.9B

SALEM METRO AREA - LAND-TO-TOTAL VALUE RATIOS, BY SUB AREA

| DEVELOPED PARCELS | | | | | | |
|----------------------------|-------------|-------------|----------------|-------------|-------------|----------------|
| Sub Area | SALEM CITY | KEIZER CITY | UNINCORPORATED | SALEM CITY | KEIZER CITY | UNINCORPORATED |
| CBD | 0.34 | | | 0.35 | | |
| Central | 0.29 | 0.32 | 0.31 | 0.28 | 0.32 | 0.31 |
| North | 0.23 | 0.30 | 0.27 | 0.23 | 0.31 | 0.27 |
| South | 0.27 | | 0.35 | 0.24 | | 0.36 |
| East | 0.32 | 0.40 | 0.35 | 0.32 | 0.40 | 0.35 |
| TOTAL | 0.30 | 0.31 | 0.35 | 0.28 | 0.31 | 0.35 |
| TOTAL PARCELS | | | | | | |
| Subtotals, by Jurisdiction | 0.32 | 0.33 | 0.37 | 0.30 | 0.33 | 0.37 |

* Valid parcels

Figure 4.2
SALEM METRO AREA - PERCENTAGE DISTRIBUTION OF UNDEVELOPED PARCELS , BY SECTION

| | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|-------|------|--------|
| | | | | | | 45.5% | | | |
| | | | | | 63.4% | 12.3% | 20.7% | | |
| | | 9.7% | 13.9% | 8.9% | 5.9% | 17.6% | 16.2% | 0.0% | |
| | | 20.6% | 5.9% | 6.8% | 13.5% | 5.6% | 20.1% | 0.0% | |
| | | | 3.5% | 12.7% | 11.4% | 5.7% | 7.0% | | |
| | | | 15.5% | 6.3% | 6.0% | 8.4% | 10.5% | | |
| | | | 9.1% | 4.4% | 4.6% | 9.8% | 4.2% | | |
| 64.7% | | 25.0% | 8.2% | 4.8% | 3.1% | 8.7% | 9.0% | | |
| 60.0% | 16.7% | 15.1% | 5.2% | 12.5% | 16.7% | 7.2% | 10.4% | | |
| 47.2% | 25.4% | 20.4% | 8.8% | 6.8% | 7.1% | 7.4% | 6.0% | 5.8% | 0.0% |
| 25.0% | 30.0% | 20.7% | 4.3% | 10.0% | 12.0% | 27.6% | 26.8% | 0.0% | 100.0% |
| | 34.8% | 8.5% | 6.2% | 8.5% | 17.9% | 18.0% | 38.4% | | |
| | | 42.9% | 35.2% | 32.8% | 5.9% | 20.9% | 25.4% | | |
| | | | 48.1% | 26.1% | 23.8% | | | | |

Sections higher than the mean undeveloped ratio (10.37%) are shaded

Site and Value Ratios

The value of improvements relative to land is a possible indication of the level of intensity at which sites are developed. Development intensity can be measured at its most elemental level as a ratio of building floor area to lot area. If there is found to be a positive correlation between building intensity and the value of improvements relative to land, then the intensity at which land is utilized would be reflected in the assessed valuation. Because the level of tax shift accompanying a change to LVT is directly associated with land/improvement assessment ratios, properties having substantial improvements relative to lot area could anticipate comparatively lower taxes than what obtains under the conventional tax, while properties utilizing extensive land areas and containing minimal improvements could expect higher taxes.

Building intensity as a physical measurement of site utilization can be expressed as a ratio. Dividing a building's square footage by the lot square footage yields a floor area ratio (FAR), or *site ratio*. The parallel measure of intensity in valuation terms can be expressed as a *value ratio*: the ratio of building-to-total assessment, or its inverse, the land-to-total value ratio (L-T-V). Because they are closer to the Assessor's actual appraisals, real market values are utilized in this analysis. In addition to lot area (LOTSIZE) and internal building area (INT_SF), it will be useful to include land use class (LUC) as the criterion for grouping parcels. The Assessor's raw data file does not contain positive values for all of these variables (see Appendix 1h). A total of 12,231 property records contain all the information needed to analyze the hypothesized relationship between site ratios and value ratios, though the selected parcels may not be representative of the complete data set.

If land-to-total value (L-T-V) ratios are found to correlate negatively with floor area ratios, then one can expect land value taxation to impact properties according to their intensity of use. Table 4.10 contains the figures from which site ratios and value ratios are derived, grouped by 19 land use classes (LUC). The accompanying graph derives from a reordering of classes by FAR in descending order, illustrating a less than linear inverse relationship between site and value ratios. As might be expected, vacant parcels and surface parking lots (points 15 and 19 on the x axis) support the hypothesized relationship; farms, homesteads, and manufactured home sites (points 16, 17, 18) do not. The overall correlation between site and value ratios using the class means is a moderate .605 (coefficient of correlation). In terms of the numbers of properties in the various classes affected, however, there seems to be a general but inconsistent tendency for land use intensity to be reflected in land & building assessments.

Single family residential parcels, comprising the great majority of all properties, warrant a closer examination. This class is divided into three lot size categories, and selected remaining classes are grouped into major land use categories for comparison. Table 4.11 utilizes the building-to-total value ratio as the preferred value ratio. The distribution of site ratios expressed as FAR shows a fair amount of consistency across major use categories, except within the single family class. Disparities are found within this class, as the accompanying graph illustrates. Among the lot size groupings, parcels are assessed similarly, although site utilization varies greatly. Small single family lots on the average utilize about 21 percent of the lot area for building floor space, about the same or more than other classes of use, whereas large lot parcels utilize only about 6

percent of the lot area as building space. This has a large affect on bringing down the average FAR.

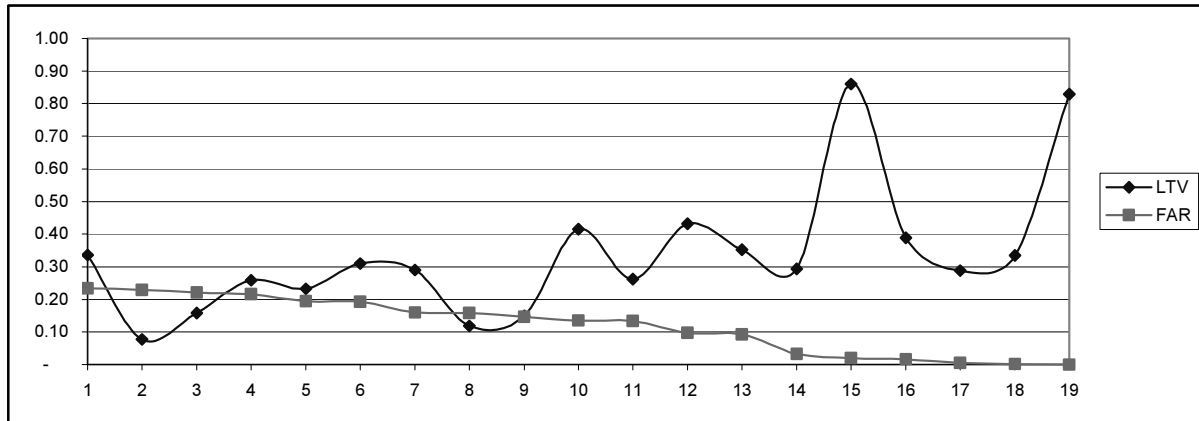
Table 4.10
SALEM METRO - SITE AND VALUE RATIOS, BY LAND USE CLASS
TAXABLE PARCELS*

| Land Use Class | Count | Value Ratios | | | Site Ratios | | |
|-------------------------------|--------|--------------|----------------|-----------------------------|--------------------|-------------------------|------------------|
| | | Land Value | Building Value | Land/Total Valuation Ratios | Lot Square Footage | Building Square Footage | Floor Area Ratio |
| Single family detached | 11,047 | 461,493,640 | 844,876,610 | 0.35 | 197,910,722 | 18,225,617 | 0.09 |
| Multi-family 2-4 units | 316 | 11,827,060 | 33,973,900 | 0.26 | 3,521,390 | 759,218 | 0.22 |
| Multi-family apartments | 511 | 47,732,350 | 353,264,520 | 0.12 | 26,622,735 | 4,204,833 | 0.16 |
| Manufactured units | 38 | 10,811,250 | 26,594,510 | 0.29 | 12,858,041 | 65,895 | 0.01 |
| Group quarters | 20 | 2,708,560 | 32,549,730 | 0.08 | 1,384,337 | 316,775 | 0.23 |
| Homestead | 377 | 29,553,460 | 46,312,500 | 0.39 | 50,298,048 | 808,428 | 0.02 |
| Hotel | 23 | 8,435,770 | 44,847,730 | 0.16 | 1,602,137 | 354,775 | 0.22 |
| Retail store | 370 | 123,332,540 | 243,610,130 | 0.34 | 22,129,312 | 5,167,163 | 0.23 |
| Retail - restaurant, lounge | 158 | 30,764,860 | 43,436,530 | 0.41 | 4,098,560 | 550,820 | 0.13 |
| Commercial services | 53 | 14,086,290 | 31,347,300 | 0.31 | 1,863,497 | 358,308 | 0.19 |
| Commercial - auto related | 147 | 31,102,830 | 40,988,780 | 0.43 | 5,300,381 | 512,648 | 0.10 |
| Office | 307 | 51,278,290 | 169,261,690 | 0.23 | 10,817,255 | 2,102,333 | 0.19 |
| Public / semi-public building | 84 | 18,880,130 | 53,119,030 | 0.26 | 3,279,632 | 439,568 | 0.13 |
| Recreation facility - outdoor | 15 | 5,145,770 | 12,443,070 | 0.29 | 7,318,171 | 235,860 | 0.03 |
| Warehouse | 277 | 40,279,900 | 98,309,800 | 0.29 | 23,517,173 | 3,766,232 | 0.16 |
| Industrial | 269 | 28,319,270 | 160,442,860 | 0.15 | 13,212,166 | 1,939,072 | 0.15 |
| Farm | 360 | 7,836,610 | 15,565,310 | 0.33 | 271,929,398 | 267,632 | 0.00 |
| Surface Parking | 205 | 19,180,350 | 3,136,180 | 0.86 | 5,442,312 | 103,637 | 0.02 |
| Vacant | 216 | 6,595,850 | 1,362,480 | 0.83 | 13,063,470 | 1,795 | 0.00 |

* Parcels having positive values for lot and building floor area, excluding floor area for last 3 categories

RELATIONSHIP BETWEEN SITE AND VALUE RATIOS

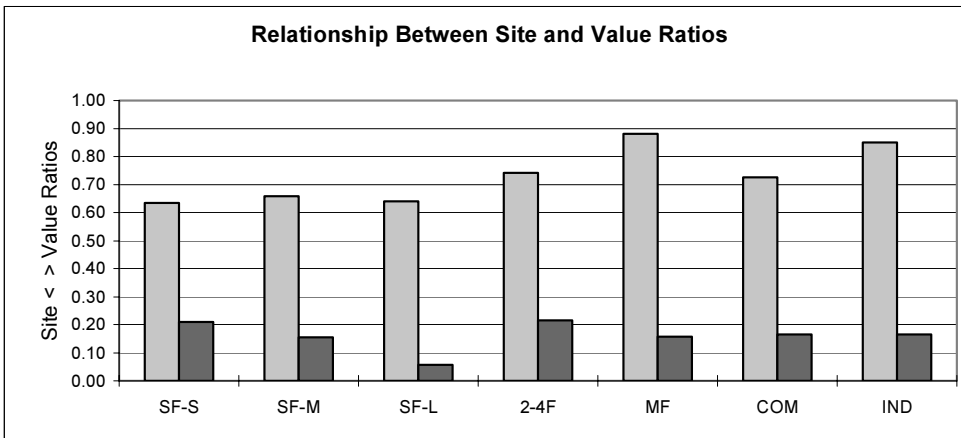
Coefficient of Correlation = .605



**Table 4.11
SALEM METRO - SITE AND VALUE RATIOS, BY SELECTED MAJOR LAND USE CATEGORIES
TAXABLE DEVELOPED PARCELS***

| Land Use Type | Count | Value Ratios | | | Site Ratios | | |
|----------------------------|---------------|-----------------------|-------------------------|-----------------------------|--------------------|-------------------------|------------------|
| | | Land Value | Building Value | Bldg/Total Valuation Ratios | Lot Square Footage | Building Square Footage | Floor Area Ratio |
| Single family - small lot | 2,056 | 85,328,070 | 148,990,940 | 0.64 | 16,299,333 | 3,412,141 | 0.21 |
| Single family - medium lot | 4,557 | 170,377,220 | 327,853,960 | 0.66 | 46,321,721 | 7,223,884 | 0.16 |
| Single family - large lot | 3,984 | 205,788,350 | 368,031,710 | 0.64 | 135,289,667 | 7,589,592 | 0.06 |
| 2-4 family | 316 | 11,827,060 | 33,973,900 | 0.74 | 3,521,390 | 759,218 | 0.22 |
| Multifamily | 511 | 47,732,350 | 353,264,520 | 0.88 | 26,622,735 | 4,204,833 | 0.16 |
| Commercial | 807 | 145,183,080 | 384,755,300 | 0.73 | 43,100,442 | 7,094,296 | 0.16 |
| Industrial | 269 | 28,319,270 | 160,442,860 | 0.85 | 11,717,640 | 1,939,072 | 0.17 |
| Total | 12,500 | \$ 694,555,400 | \$ 1,777,313,190 | 0.72 | 282,872,929 | 32,223,036 | 0.11 |

* Parcels having positive values for designated variables.



These observations seem to imply that the land component of large-lot single family land parcels is assessed at a level below what their site utilization would indicate. Assessment practice would appear to explain most of this discrepancy. Standard appraisal methods include the practice of devaluing “excess land” on individual sites. The operating assumption is that single family development has an optimal site size; if the site exceeds this, the excess land area tends to decline in market value as lot size increases.

The implications of this are significant. While small lot single family parcels generally utilize land more intensively, the expected tax burden effects are practically no different than on large lot parcels having “excessive” land area. This is because the land-to-total assessed values are similar across all single family parcels (about .35 using this subset). If this selection of parcels is representative of the whole, the 2-rate tax impacts on residential sites will be fairly uniform, but not commensurate with land utilization.

Land Value Gradients

Individual parcel assessments provided by the Marion County Assessor's Office are used for the following analysis. A cross section of unit land values, distributed along a vector line, provides a useful measure of variation in site values by location. An "ideal" value gradient would show high values at an urban center, with gradually decreasing values at greater distances from the center.

Two vector lines of a half mile in width, shown in Figure 4.3, are selected to measure the steepness of gradients in the Salem metro area. The Keizer gradient is about 4 miles in length, extends north through Keizer City, and includes 678 parcels, 73% of which are residential land uses. The Salem gradient is about 5 miles long, extends southwest from the Salem city center, and includes 544 parcels, 60% of which are residential. All selected parcel records contain values assigned to the requisite variables, including land value, land use code, and acreage. Parcels in Figure 4.4 are arranged in geographic order along the vector lines, with the point nearest the Salem urban center as the origin of progression (left side of graph).

The general pattern is a somewhat flat gradient, especially the Keizer vector. The Salem gradation begins at a higher level at its point of origin, and appears to decline as the cross sectional line progresses away from the central business district (survey section 27) into adjacent section 34. The profile remains relatively low in the remaining sections. The Keizer gradation appears uniformly horizontal, with considerable fluctuations in unit values.

Parcels can be grouped by section, and mean unit values calculated for each. The results of this distribution are shown in Figure 4.5. Mean lot values are highest in the Salem CBD at \$11.81 per square foot, about double the mean value of the entire Salem vector, and well over 3 times the average of the Keizer vector. Mean single family unit land values are about half the overall mean within and near the Salem CBD, but they are consistently higher than non-residential parcels *outside* the central area.

The general observation to be drawn is that site values reach a moderate peak at the Salem urban center, but remain flat rather than gradually tapering off at the urban fringes. This leads to the expectation that a land-based tax system will have modest but not particularly strong influence on central area parcels. Higher tax burdens would be expected to lead to the infill of centrally located underutilized sites if land values are high.

The relationship between assessed values and tax burden shift accompanying conversion to a land tax is this: The L-T-V ratio determines the direction of tax shift. The LVT level determines the relative proportion of tax shift. The land value in dollars determines the amount of tax shift. To give an example, a \$50,000 vacant lot will – under a specified differential tax level – experience the same proportional tax shift as a \$500,000 vacant lot (e.g., a 125% increase), but the dollar amount will differ by a factor of ten. Average lots in the Salem CBD might be

expected to see tax shifts in dollar amounts at about twice the overall average for the metropolitan area.

Figure 4.3
 SALEM METRO AREA - LAND VALUE GRADIENTS
 SUPERIMPOSED ON SURVEY GRID SECTIONS

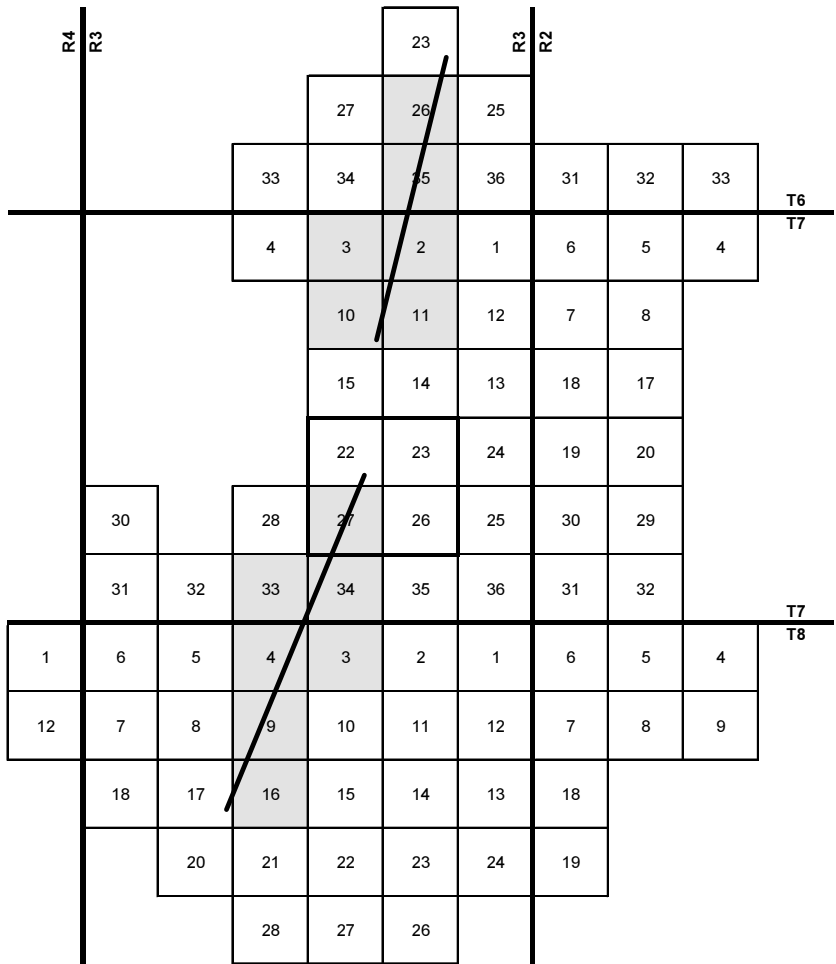
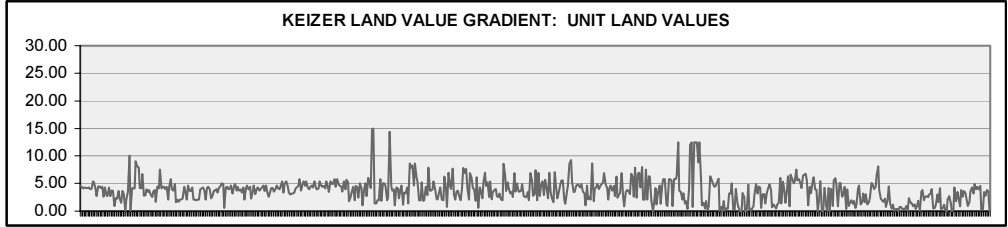
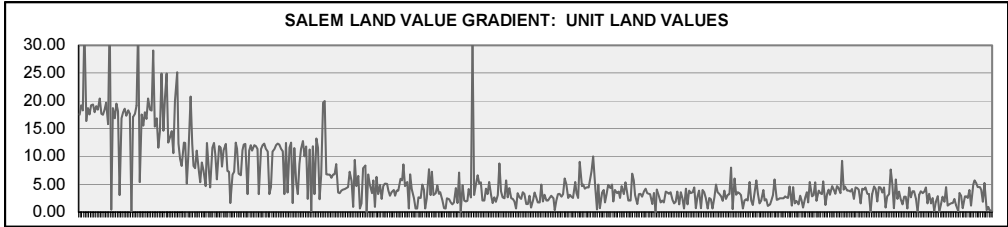


Figure 4.4



CHAPTER 5

EFFECTS OF LIMITING TAXABLE VALUE

Property Tax Limitations

Oregon state's property tax limitations took effect, with the adoption of Measure 5, in 1991. This first constitutional amendment produced the consequence of rolling back the tax rate that can be applied to individual properties. Subsequently, Measure 47 compounded the roll-back effect. Both measures constituted a departure from the practice of applying a uniform tax rate to current full market values. The gap between total real market value (TV_RMV) and total taxable value (TV_TAXABLE) has grown wider over the years. Moreover, because the prescribed limitations are property-specific in their application, the differences between the two assessed valuations vary from site to site. These differences amount to a distortion of present market reality, insofar as the tax burdens actually experienced are at variance with tax burdens determined on the basis of true market values.

The purpose of this chapter is to simulate the differences in tax revenue outcomes between taxable and true market valuation, using conventional tax application methods. The first analysis of tax simulations will reveal the extent of the shortfall in revenues that limited taxable valuations produces. A second analysis will reveal where among the aggregation of properties distortions in tax outcomes occur. Two subsets of valid parcels and their assessed values are employed in these analyses, the location subset and the land use subset.

Revenue Differences and Distortions by Sub Area

The location subset, defined in the previous chapter, includes 52,555 valid parcels which can be aggregated by jurisdiction, section, sub area, or developed status. A summary of taxable and real market value property values by sub area and developed status is taken from Tables 4.7 and 4.8.

Revenue Differences

These assessed values are first inserted into conventional tax application spreadsheets using the derived rates method. The appropriate tax rates, found in Table 4.3, are specific to each of the three jurisdictions. Table 5.1 compares the revenue yield from the two simulated tax applications, based on taxable values and real market values. The reported differences in revenue and the percent increase from taxable to RMV applications reveal differences in tax limitation effects across jurisdictions.

For example, valid parcels in Salem City would yield over \$26 million in additional revenue if the tax limitations were not in effect, that is, if real market values were used to calculate taxes. On a proportional basis, the Salem City revenue difference (33% more than the taxable value outcome) is greater than the difference produced from the other two jurisdictions. As such, Salem properties would have to raise proportionately more taxes (nearly \$800 per parcel, on average) than Keizer and the unincorporated areas (about \$314 per parcel) to make up the revenue difference.

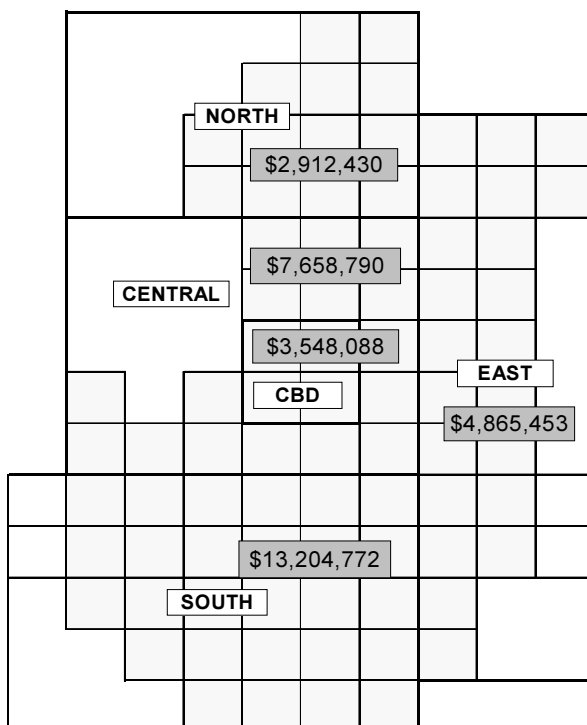
Table 5.1
**CONVENTIONAL TAX REVENUES BY JURISDICTION:
 COMPARING TAXABLE VALUE WITH REAL MARKET VALUE**
ALL VALID PARCELS*

| Jurisdiction | No. Parcels | Revenue from Taxable Value | Revenue from Real Market Value | Difference | Percent Increase |
|----------------|-------------|----------------------------|--------------------------------|---------------|------------------|
| SALEM CITY | 33,164 | \$ 78,417,399 | \$104,529,650 | \$ 26,112,251 | 33.3% |
| KEIZER CITY | 9,578 | \$ 16,612,559 | \$ 19,705,105 | \$ 3,092,546 | 18.6% |
| UNINCORPORATED | 9,813 | \$ 13,039,808 | \$ 16,024,544 | \$ 2,984,736 | 22.9% |
| | 52,555 | 108,069,766 | 140,259,300 | \$ 32,189,533 | 29.8% |

* Valid parcels: taxable parcels with positive values for land value and section

As for location, the greatest difference in revenue is found in the South sub area, while the lowest difference occurs in the North sub area. In fact, Keizer City appears to be closest to a real market value outcome. Figure 5.1 shows locations and accompanying revenue differences produced by all valid parcels. Stating the case from the reverse perspective, Salem City properties and South sub area properties are currently receiving proportionately greater tax breaks under the Oregon tax limitations.

Figure 5.1
 DIFFERENCE IN CONVENTIONAL TAX REVENUES, BY SUB AREA
 COMPARING TAXABLE VALUE WITH REAL MARKET VALUE



Distortions in Tax Burden

Comparing two sets of revenue outcomes derived from the same tax rate may not be the most realistic method of highlighting tax discrepancies. Normally, projected revenues are the antecedent to established tax rates. If the revenues produced from taxable values

amount to the levels desired, then the tax rates would need to be adjusted for any other set of assessed values to reach the same revenue totals.

To simulate a revenue neutral outcome, Table 4.7 and 4.8 summaries of assessed values associated with the location subset are inserted into conventional tax application spreadsheets using the iteration method. As explained in Chapter 4, the iteration problem is solved by finding a new tax rate for each jurisdiction that yields an RMV-generated revenue equal to the TAXABLE-generated revenue. Because the totals are now identical, there is no point in showing comparative revenues by jurisdiction. Rather, what is brought to light in this analysis are the positive and negative differences in revenue produced *within* property subsets when changing from taxable to real market valuation.

Table 5.2 reveals that some sub areas would produce more revenue under an RMV assumption, resulting in a positive difference figure, while others produce less revenue, resulting in a negative difference figure. In effect, parcel aggregations in the positive range receive favored treatment under current Oregon tax limitations that reduce assessments from a higher real market value to a lower taxable value. Conversely, parcel aggregations in the negative range are subjected to higher tax burdens than would obtain under RMV.

Table 5.2
**CONVENTIONAL TAX REVENUES BY SUB AREA:
 COMPARING TAXABLE VALUE WITH REAL MARKET VALUE**

| DEVELOPED PARCELS | | REVENUE NEUTRAL TAX* | | | |
|--------------------------|---------------|-----------------------------|--------------------------------|-----------------|-------------------------------|
| Sub Area | No. Parcels | Revenue from Taxable Value | Revenue from Real Market Value | Difference | Pct. Diff. from Taxable Value |
| CBD | 5,145 | \$ 11,602,907 | \$ 11,266,607 | \$ (336,300) | -2.9% |
| Central | 9,281 | 22,495,331 | 22,727,769 | 232,438 | 1.0% |
| North | 7,610 | 14,876,259 | 14,782,176 | (94,083) | -0.6% |
| South | 13,312 | 34,284,507 | 35,466,671 | 1,182,163 | 3.4% |
| East | 11,757 | 21,746,314 | 20,675,098 | (1,071,217) | -4.9% |
| Total | 47,105 | 105,005,318 | 104,918,320 | (86,998) | (0) |

| UNDEVELOPED PARCELS | | REVENUE NEUTRAL TAX* | | | |
|----------------------------|--------------|-----------------------------|--------------------------------|---------------|-------------------------------|
| Sub Area | No. Parcels | Revenue from Taxable Value | Revenue from Real Market Value | Difference | Pct. Diff. from Taxable Value |
| CBD | 335 | \$ 306,505 | \$ 329,500 | \$ 22,995 | 7.5% |
| Central | 906 | 583,599 | 573,359 | (10,240) | -1.8% |
| North | 1,095 | 556,919 | 585,266 | 28,347 | 5.1% |
| South | 1,792 | 958,307 | 1,004,280 | 45,973 | 4.8% |
| East | 1,322 | 659,118 | 659,040 | (78) | 0.0% |
| Total | 5,450 | 3,064,448 | 3,151,446 | 86,997 | 0 |

| ALL VALID PARCELS | | REVENUE NEUTRAL TAX* | | | |
|--------------------------|---------------|-----------------------------|--------------------------------|--------------|-------------------------------|
| Sub Area | No. Parcels | Revenue from Taxable Value | Revenue from Real Market Value | Difference | Pct. Diff. from Taxable Value |
| CBD | 5,480 | \$ 11,909,412 | \$ 11,596,106 | \$ (313,305) | -2.6% |
| Central | 10,187 | 23,078,930 | 23,301,128 | 222,198 | 1.0% |
| North | 8,705 | 15,433,178 | 15,367,442 | (65,736) | -0.4% |
| South | 15,104 | 35,242,814 | 36,470,951 | 1,228,137 | 3.5% |
| East | 13,079 | 22,405,432 | 21,334,138 | (1,071,294) | -4.8% |
| Total | 52,555 | 108,069,766 | 108,069,766 | (0) | (0) |

* Revenue from RMV set equal to revenue from TAXABLE

The summary tabulations combine tax results from all three jurisdictions. Note that all valid parcels in the South sub area would yield \$1.2 million more in revenue by applying RMV to the tax calculations. This means they are currently contributing less revenue than other sub areas, which have to make up the difference to reach the total revenue-

neutral figure for the combined jurisdictions. Most of this difference appears to come from the East sub area properties, which currently pay 4.8% more taxes than they would if the tax limitations were not in effect.

These differences, or distortions in tax burden, are shown to vary by developed status as well as by location. For example, within the Salem central business district, developed parcels pay more taxes under the limitations (using TAXABLE) than they would under real market value, whereas undeveloped parcels pay less. The effect of this particular distortion produced by the Oregon tax limitations is a financial reward for not developing downtown sites. The average benefit to 335 undeveloped central sites is a 7.5 percent decrease in tax burden.

A greater amount of detail in comparative tax effects is revealed when square mile survey sections are used as units of analysis. Table 5.3 shows the differences in revenue neutral tax applications for combined jurisdictions and developed status. Section reference numbers (obtained by adding the township and range numbers as prefixes) can be found on the Appendix 1d schematic map. Among a total of 76 sections with valid observations, only 19 have positive values. That is, a smaller proportion of the urbanized land area in Salem metro receives a tax break under the tax limitation system, which is offset by a tax burden increase experienced by the greater part of the land area. This is graphically illustrated in Figure 5.2.

Two sections where the greatest difference in comparative tax revenues is found are located in the closer-in South sub area, forming the start of a crescent of tax advantaged sections in the South end. Examining more closely the properties in the positive and negative percent change ranges, it is not entirely clear what accounts for the differences. Single family parcels are prevalent in most sections, although the proportions are lower in the positive range sections. That is, non-residential sections tend to benefit more under Oregon tax limitations. Also, positive and negative change varies by developed status (refer to Figure 4.2). Among all parcels found in the sections included in the positive range, 16 percent are undeveloped; this compares to 9% of all parcels in the negative range. This indicates an advantage, in the overall balance, to underutilized sites under current tax limitations.

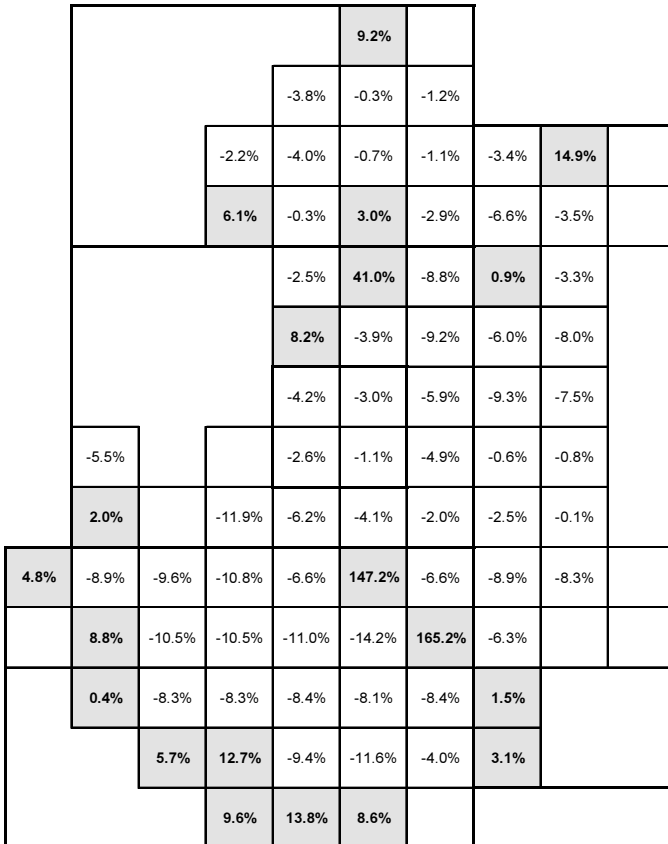
There is no clear pattern of tax shift produced by site values; the mean land value of about \$48,600 per lot is similar in both positive and negative ranges. However, it is observed that sections with higher building assessments appear in the positive tax difference range. Mean total values average about \$242,000 in sections experiencing higher taxes when shifting to real market assessments, compared to about \$144,000 in sections receiving lower tax burdens under RMV. Indications are that non-residential properties with high improvement values are currently advantaged under Oregon tax limitations.

Table 5.3
**CONVENTIONAL TAX REVENUES BY SECTION:
 COMPARING TAXABLE VALUE WITH REAL MARKET VALUE
 COMBINED JURISDICTIONS**

| REVENUE NEUTRAL TAX** | | | | | | |
|--------------------------|-----------------|-------|----------------------------|--------------------------------|------------|-------------------------------|
| Section | # of Properties | | Revenue from Taxable Value | Revenue from Real Market Value | Difference | Pct. Diff. from Taxable Value |
| CBD - T7S-R3W | | | | | | |
| | 22 | 528 | 2,566,282 | 2,458,498 | (107,784) | -4.2% |
| | 23 | 2,122 | 2,914,527 | 2,826,900 | (87,627) | -3.0% |
| | 26 | 2,159 | 3,388,176 | 3,350,555 | (37,621) | -1.1% |
| | 27 | 671 | 3,040,427 | 2,960,154 | (80,273) | -2.6% |
| Central - T7S-R3W | | | | | | |
| | 10 | 444 | 785,692 | 766,054 | (19,639) | -2.5% |
| | 11 | 964 | 3,337,609 | 4,705,259 | 1,367,650 | 41.0% |
| | 12 | 758 | 2,183,461 | 1,990,761 | (192,700) | -8.8% |
| | 13 | 1,182 | 1,795,139 | 1,630,752 | (164,387) | -9.2% |
| | 14 | 1,282 | 2,216,621 | 2,130,821 | (85,800) | -3.9% |
| | 15 | 408 | 681,652 | 737,608 | 55,956 | 8.2% |
| | 24 | 1,500 | 3,002,652 | 2,824,778 | (177,874) | -5.9% |
| | 25 | 265 | 453,036 | 431,008 | (22,027) | -4.9% |
| | 28 | 2 | 3 | 3 | (1) | -16.6% |
| | 30 | 16 | 6,269 | 5,923 | (345) | -5.5% |
| | 31 | 31 | 18,468 | 18,843 | 375 | 2.0% |
| | 32 | 3 | 6,046 | 5,965 | (81) | -1.3% |
| | 33 | 502 | 1,562,160 | 1,376,651 | (185,508) | -11.9% |
| | 34 | 2,051 | 4,006,089 | 3,758,518 | (247,571) | -6.2% |
| | 35 | 740 | 2,173,727 | 2,085,093 | (88,634) | -4.1% |
| | 36 | 39 | 850,307 | 833,091 | (17,215) | -2.0% |
| North - T6S-R3W | | | | | | |
| | 23 | 382 | 415,926 | 454,055 | 38,129 | 9.2% |
| | 25 | 298 | 499,189 | 493,251 | (5,938) | -1.2% |
| | 26 | 1,663 | 3,157,930 | 3,147,533 | (10,397) | -0.3% |
| | 27 | 78 | 105,202 | 101,182 | (4,020) | -3.8% |
| | 33 | 29 | 41,146 | 40,253 | (894) | -2.2% |
| | 34 | 1,086 | 2,048,082 | 1,965,871 | (82,211) | -4.0% |
| | 35 | 1,137 | 2,513,004 | 2,495,601 | (17,404) | -0.7% |
| | 36 | 648 | 1,018,056 | 1,006,848 | (11,208) | -1.1% |
| 73__ | 1 | 531 | 1,357,647 | 1,317,677 | (39,970) | -2.9% |
| | 2 | 1,476 | 2,304,735 | 2,373,421 | 68,686 | 3.0% |
| | 3 | 1,346 | 1,896,185 | 1,891,037 | (5,147) | -0.3% |
| | 4 | 31 | 76,075 | 80,712 | 4,637 | 6.1% |
| South - T8S-R3,4W | | | | | | |
| | 1 | 13 | 46,179 | 43,123 | (3,056) | -6.6% |
| | 2 | 807 | 2,718,848 | 6,721,590 | 4,002,742 | 147.2% |
| | 3 | 1,450 | 3,543,392 | 3,309,442 | (233,950) | -6.6% |
| | 4 | 1,454 | 3,183,241 | 2,840,360 | (342,881) | -10.8% |
| | 5 | 450 | 1,202,267 | 1,086,928 | (115,339) | -9.6% |
| | 6 | 231 | 734,501 | 668,998 | (65,504) | -8.9% |
| | 7 | 10 | 23,929 | 26,033 | 2,104 | 8.8% |
| | 8 | 518 | 1,039,411 | 930,658 | (108,753) | -10.5% |
| | 9 | 1,779 | 3,711,922 | 3,322,565 | (389,357) | -10.5% |
| | 10 | 1,322 | 3,235,686 | 2,879,663 | (356,022) | -11.0% |
| | 11 | 683 | 1,917,210 | 1,644,637 | (272,573) | -14.2% |
| | 12 | 84 | 164,093 | 435,140 | 271,048 | 165.2% |
| | 13 | 591 | 1,246,957 | 1,141,636 | (105,321) | -8.4% |
| | 14 | 772 | 2,019,063 | 1,854,839 | (164,224) | -8.1% |
| | 15 | 1,536 | 3,009,661 | 2,757,679 | (251,982) | -8.4% |
| | 16 | 1,301 | 2,529,352 | 2,320,344 | (209,008) | -8.3% |
| | 17 | 526 | 1,231,176 | 1,128,438 | (102,737) | -8.3% |
| | 18 | 22 | 55,621 | 55,844 | 224 | 0.4% |
| | 20 | 12 | 10,443 | 11,042 | 599 | 5.7% |
| | 21 | 110 | 102,403 | 115,430 | 13,027 | 12.7% |
| | 22 | 489 | 1,176,345 | 1,065,540 | (110,805) | -9.4% |
| | 23 | 800 | 1,986,601 | 1,756,500 | (230,102) | -11.6% |
| | 24 | 59 | 248,630 | 238,614 | (10,016) | -4.0% |
| | 26 | 21 | 33,553 | 36,425 | 2,872 | 8.6% |
| | 27 | 20 | 29,449 | 33,507 | 4,058 | 13.8% |
| | 28 | 24 | 15,450 | 16,930 | 1,480 | 9.6% |
| 84__ | 1 | 17 | 25,600 | 26,824 | 1,224 | 4.8% |
| | 12 | 3 | 1,831 | 2,219 | 388 | 21.2% |

| Section | # of Properties | Revenue from Taxable Value | Revenue from Real Market Value | Difference | Pct. Diff. from Taxable Value |
|----------------|-----------------|----------------------------|--------------------------------|------------|-------------------------------|
| East - T7S-R2W | | | | | |
| 4 | - | - | - | - | - |
| 5 | 1,060 | 1,213,075 | 1,171,154 | (41,921) | -3.5% |
| 6 | 1,336 | 2,290,302 | 2,139,199 | (151,103) | -6.6% |
| 7 | 811 | 1,495,150 | 1,507,931 | 12,781 | 0.9% |
| 8 | 1,056 | 1,224,674 | 1,183,926 | (40,749) | -3.3% |
| 17 | 699 | 896,878 | 824,707 | (72,171) | -8.0% |
| 18 | 1,260 | 2,815,819 | 2,647,883 | (167,935) | -6.0% |
| 19 | 1,254 | 4,125,619 | 3,742,086 | (383,533) | -9.3% |
| 20 | 759 | 998,788 | 924,093 | (74,696) | -7.5% |
| 29 | 288 | 435,071 | 431,683 | (3,388) | -0.8% |
| 30 | 1,372 | 2,248,766 | 2,236,302 | (12,464) | -0.6% |
| 31 | 1,235 | 1,841,937 | 1,795,108 | (46,829) | -2.5% |
| 32 | 1,217 | 1,195,507 | 1,194,776 | (731) | -0.1% |
| 31 | 57 | 215,215 | 207,991 | (7,225) | -3.4% |
| 32 | 92 | 92,120 | 105,866 | 13,746 | 14.9% |
| 33 | - | - | - | - | - |
| 4 | 1 | 9,438 | 8,757 | (681) | -7.2% |
| 5 | 126 | 304,655 | 279,384 | (25,271) | -8.3% |
| 6 | 254 | 736,032 | 670,425 | (65,607) | -8.9% |
| 7 | 49 | 107,437 | 100,691 | (6,746) | -6.3% |
| 8 | - | - | - | - | - |
| 9 | 2 | 1,016 | 1,014 | (1) | -0.1% |
| 18 | 98 | 103,612 | 105,175 | 1,563 | 1.5% |
| 19 | 53 | 54,321 | 55,988 | 1,667 | 3.1% |
| TOTAL | 52,555 | 108,069,766 | 108,069,766 | (0) | 0.0% |

Figure 5.2
**PERCENTAGE CHANGE IN CONVENTIONAL TAX REVENUES BY SURVEY SECTION:
 COMPARING TAXABLE VALUE WITH REAL MARKET VALUE**



Including sections with 10 or more observations

Shaded cells indicate positive change

Revenue Differences and Distortions by Land Use

The land use subset, described in the previous chapter, includes 47,585 valid parcels which can be aggregated by jurisdiction or land use class. The summary of taxable and RMV property values is taken from Appendices 4.4 and 4.5, which exclude the condominium and infrastructure codes. Table 5.4 shows the distribution of parcels by major land use classes, where it is observed that single family residential uses predominate in all three jurisdictions.

Table 5.4

SALEM CITY - DISTRIBUTION OF VALID PARCELS BY MAJOR LAND USE CLASS

| Major Code | Major Land Use | No. of Properties | Pct. of Total Properties |
|------------|-----------------------------|-------------------|--------------------------|
| 1 | Residential - Single Family | 25,206 | 84.0% |
| 2 | Residential - Multifamily | 1,583 | 5.3% |
| 3 | Residential - Mobile Home | 494 | 1.6% |
| 4 | Retail | 609 | 2.0% |
| 5 | Commercial | 1,100 | 3.7% |
| 6 | Industrial | 393 | 1.3% |
| 7 | Community Services | 161 | 0.5% |
| 8 | Natural Resource Activity | 66 | 0.2% |
| 9 | Surface parking | 227 | 0.8% |
| 10 | Vacant | 158 | 0.5% |
| TOTAL | | 29,997 | 100.0% |

KEIZER CITY - DISTRIBUTION OF VALID PARCELS BY MAJOR LAND USE CLASS

| Major Code | Major Land Use | Total Assessed Value | Pct. of Total Assessed Value |
|------------|-----------------------------|----------------------|------------------------------|
| 1 | Residential - Single Family | 7,626 | 88.2% |
| 2 | Residential - Multifamily | 508 | 5.9% |
| 3 | Residential - Mobile Home | 111 | 1.3% |
| 4 | Retail | 88 | 1.0% |
| 5 | Commercial | 70 | 0.8% |
| 6 | Industrial | 27 | 0.3% |
| 7 | Community Services | 20 | 0.2% |
| 8 | Natural Resource Activity | 56 | 0.6% |
| 9 | Surface parking | 11 | 0.1% |
| 10 | Vacant | 128 | 1.5% |
| TOTAL | | 8,645 | 100.0% |

UNINCORPORATED - DISTRIBUTION OF VALID PARCELS BY MAJOR LAND USE CLASS

| Major Code | Major Land Use | Total Assessed Value | Pct. of Total Assessed Value |
|------------|-----------------------------|----------------------|------------------------------|
| 1 | Residential - Single Family | 7,411 | 85.7% |
| 2 | Residential - Multifamily | 597 | 6.9% |
| 3 | Residential - Mobile Home | 335 | 3.9% |
| 4 | Retail | 111 | 1.3% |
| 5 | Commercial | 95 | 1.1% |
| 6 | Industrial | 37 | 0.4% |
| 7 | Community Services | 27 | 0.3% |
| 8 | Natural Resource Activity | 238 | 2.8% |
| 9 | Surface parking | 32 | 0.4% |
| 10 | Vacant | 60 | 0.7% |
| TOTAL | | 8,943 | 103.4% |

* Valid parcels

Revenue Differences

Again, the summary assessed values are first inserted into conventional tax application spreadsheets using the derived rates method. Comparing Table 5.5 results with the previous Table 5.1, reveals a close similarity in tax results by jurisdiction. Assuming a high degree of overlap between the land use and location subsets, this observation is expected.

Table 5.5
**CONVENTIONAL TAX REVENUES BY JURISDICTION:
COMPARING TAXABLE VALUE WITH REAL MARKET VALUE**

ALL VALID PARCELS*

| Jurisdiction | No. Parcels | Revenue from Taxable Value | Revenue from Real Market Value | Difference | Percent Increase |
|----------------|-------------|-------------------------------|-----------------------------------|---------------|---------------------|
| SALEM CITY | 29,997 | \$ 76,215,898 | \$ 101,655,674 | \$ 25,439,776 | 33.4% |
| KEIZER CITY | 8,645 | \$ 16,176,001 | \$ 19,152,899 | \$ 2,976,898 | 18.4% |
| UNINCORPORATED | 8,943 | \$ 12,736,007 | \$ 15,583,799 | \$ 2,847,792 | 22.4% |
| | 47,585 | 105,127,906 | 136,392,373 | \$ 31,264,467 | 29.7% |

* Valid parcels: taxable parcels with positive values for land value and land use class

Distortions in Tax Burden

Again, revenue neutral tax rates are applied to the two sets of assessments (TAXABLE and RMV), producing identical revenue totals for each jurisdiction. Rather than showing separate tax outcomes for all three jurisdictions, the results are combined in Table 5.6. Distortions in tax burden are illustrated, where the differences in the same total revenue produced occur within the complete subset of valid cases.

Table 5.6
**CONVENTIONAL TAX REVENUES BY LAND USE CLASS:
COMPARING TAXABLE VALUE WITH REAL MARKET VALUE**

ALL JURISDICTIONS

| Land Use Class | No. Parcels | REVENUE NEUTRAL TAX* | | Difference | Percent Increase |
|-------------------------------|---------------|-------------------------------|-----------------------------------|----------------|---------------------|
| | | Revenue from Taxable Value | Revenue from Real Market Value | | |
| Single family detached | 39,832 | \$ 66,238,910 | \$ 62,103,577 | \$ (4,135,333) | -6.2% |
| Multi-family 2-4 units | 1,668 | \$ 3,018,407 | \$ 2,984,283 | \$ (34,124) | -1.1% |
| Multi-family apartments | 983 | \$ 8,465,845 | \$ 7,785,384 | \$ (680,461) | -8.0% |
| Mobil home park units | 940 | \$ 1,863,590 | \$ 1,846,707 | \$ (16,883) | -0.9% |
| Group quarters | 37 | \$ 649,525 | \$ 637,242 | \$ (12,284) | -1.9% |
| Homestead | 411 | \$ 872,042 | \$ 920,846 | \$ 48,805 | 5.6% |
| Hotel | 29 | \$ 789,235 | \$ 793,436 | \$ 4,201 | 0.5% |
| Retail store | 580 | \$ 6,124,703 | \$ 5,842,206 | \$ (282,497) | -4.6% |
| Retail - restaurant, lounge | 228 | \$ 1,217,932 | \$ 1,177,361 | \$ (40,570) | -3.3% |
| Commercial services | 69 | \$ 810,592 | \$ 731,958 | \$ (78,634) | -9.7% |
| Commercial - auto related | 236 | \$ 1,275,197 | \$ 1,208,956 | \$ (66,241) | -5.2% |
| Office | 552 | \$ 3,896,650 | \$ 3,838,921 | \$ (57,729) | -1.5% |
| Public / semi-public building | 166 | \$ 1,165,295 | \$ 1,147,034 | \$ (18,261) | -1.6% |
| Recreation facility - outdoor | 42 | \$ 505,863 | \$ 502,764 | \$ (3,098) | -0.6% |
| Warehouse | 379 | \$ 2,349,802 | \$ 2,221,811 | \$ (127,991) | -5.4% |
| Industrial | 457 | \$ 5,100,789 | \$ 10,596,884 | \$ 5,496,095 | 107.7% |
| Farm | 360 | \$ 275,108 | \$ 277,109 | \$ 2,002 | 0.7% |
| Surface Parking | 270 | \$ 360,347 | \$ 346,941 | \$ (13,406) | -3.7% |
| Vacant | 346 | \$ 148,077 | \$ 164,487 | \$ 16,410 | 11.1% |
| TOTAL | 47,585 | 105,127,906 | 105,127,906 | 0 | 0.0% |

* Revenue from RMV set equal to revenue from TAXABLE

Here, only five classes of land use, representing only 3 percent of the total parcels, experience an increase in tax burden when changing from taxable assessments to RMV assessments. These properties, most of which appear to be industrial as well as land-extensive uses (see homestead, farm, and vacant), benefit most from the tax limitations. The vast majority of properties would benefit more from a change to a taxation method based on real market assessments.

The tax break these few use classes now receive is off-set by higher tax burdens that most land use classes must absorb. Considering the type and number of properties affected, the tax burden resulting from Oregon property tax limitations has clearly shifted onto residential property. The tax distortion amounts to about \$4.9 million in added taxes coming from valid single family and multi-family parcels.

Conclusion

Efforts to reform Oregon's property tax system must take into account the distortions that have been brought on by Measures 5 and 47. These tax limitations, rather than simply constraining total revenue increases, affect individual properties in ways which misconstrue their true value assessments. The result is tax breaks for some and added tax burdens for others. Selective tax shifts appear to benefit properties in Salem's south end, where high value industrial uses are concentrated. Also benefiting from the movement away from real market values are owners of undeveloped parcels, particularly those located within the Salem central business district. The losers under the current tax system include large numbers of home owners and renters, and those who hold centrally located properties with substantial improvements.

CHAPTER 6

TAX BURDEN SHIFTS ACCOMPANYING LVT

Methodology

The second step in the study design consists of tax simulations comparing the tax burden effects of the land value tax with that of the conventional tax. Applications utilize real market values (RMV) rather than taxable values, as it would be unreasonable to institute a tax reform based on distorted assessments. Again, revenue neutrality is assumed. That is, total taxes derived from an LVT application would be no more and no less than what is currently derived under the conventional system using taxable assessments. Tax shift effects are measured by comparing revenues collected from valid parcels, using tax rates derived for each jurisdiction.

Conventional levy rates must be adjusted downwards in order for the revenue yield from RMV assessments to equal the same revenue yield from taxable values. Both conventional rates and differential rates associated with the LVT are in Appendix 6.1 and 6.2. These rates are found using the formula method described in Chapter 5, and are subsequently applied to various property aggregations as derived rates. They pertain only to the two subsets of valid parcels, not the grand total assessment found in the raw data set. In this sense, reported revenue figures fall short of the amounts that would actually constitute the entire tax base of the Salem metro area.

Tax Burden Shift by Land Use

Recalling the discussion about tax shift indicators in Chapter 4, it is the L-T-V (land-to-total value ratio) that will determine the direction of tax shift accompanying a change from a conventional RMV tax to a 2-rate tax. These ratios appear in Tables 4.9A and B. In the case of Salem City, any parcel upon which the land assessment comprises more than 30% of the total value will experience an upward tax shift. The extent of the shift will be determined by the LVT (land value tax) level, in combination with the L-T-V ratio itself. Parcels with high land ratios, in the range of 80% for example, can expect a heavy tax burden shift. Because of the predominance of single family residential parcels in the land use subset, this category and its associated L-T-V ratio (in the range of about 35%) will heavily influence the mean, and tend to drive the 2-rate tax outcome.

General Land Use Categories

In all three jurisdictions, the single family class is slightly above the overall mean L-T-V ratio. This results in moderate upward tax shifts, as shown in Tables 6.1A-C. The tax applications reflect a phase-in period for the 2-rate tax, whereby the LVT levels are progressively increased, from 55% to 95 percent.

Table 6.1A
SALEM CITY - TAX BURDEN SHIFT, BY MAJOR LAND USE

| Major Land Use Class | CONVENTIONAL | | 2-RATE TAX | | | |
|-----------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | TAX | 55% LVT | 65% LVT | 75% LVT | 85% LVT | 95% LVT |
| Residential - Single Family | \$ 41,463,810 | \$ 41,908,677 | \$ 42,934,694 | \$ 44,194,086 | \$ 45,776,693 | \$ 47,825,261 |
| Residential - Multifamily | \$ 7,751,726 | \$ 7,553,806 | \$ 7,097,333 | \$ 6,537,032 | \$ 5,832,934 | \$ 4,921,530 |
| Residential - Mobile Home | \$ 1,163,445 | \$ 1,192,105 | \$ 1,258,205 | \$ 1,339,341 | \$ 1,441,299 | \$ 1,573,277 |
| Retail | \$ 5,648,209 | \$ 5,738,854 | \$ 5,947,914 | \$ 6,204,525 | \$ 6,526,995 | \$ 6,944,408 |
| Commercial | \$ 7,991,000 | \$ 8,017,505 | \$ 8,078,634 | \$ 8,153,667 | \$ 8,247,957 | \$ 8,370,009 |
| Industrial | \$ 10,450,678 | \$ 9,994,737 | \$ 8,943,182 | \$ 7,652,444 | \$ 6,030,445 | \$ 3,930,887 |
| Community Services | \$ 1,270,089 | \$ 1,284,026 | \$ 1,316,171 | \$ 1,355,627 | \$ 1,405,209 | \$ 1,469,389 |
| Natural Resource Activity | \$ 87,041 | \$ 88,834 | \$ 92,967 | \$ 98,040 | \$ 104,416 | \$ 112,669 |
| Surface parking | \$ 308,722 | \$ 346,614 | \$ 434,005 | \$ 541,274 | \$ 676,072 | \$ 850,559 |
| Vacant | \$ 81,178 | \$ 90,740 | \$ 112,793 | \$ 139,862 | \$ 173,879 | \$ 217,910 |
| TOTAL | \$ 76,215,898 | \$ 76,215,898 | \$ 76,215,898 | \$ 76,215,898 | \$ 76,215,898 | \$ 76,215,898 |

| Major Land Use Class | CONVENTIONAL | | PERCENTAGE CHANGE | | | |
|-----------------------------|--------------|---------------|-------------------|---------------|---------------|---------------|
| | TAX | 55% LVT | 65% LVT | 75% LVT | 85% LVT | 95% LVT |
| Residential - Single Family | | 1.1% | 3.5% | 6.6% | 10.4% | 15.3% |
| Residential - Multifamily | | -2.6% | -8.4% | -15.7% | -24.8% | -36.5% |
| Residential - Mobile Home | | 2.5% | 8.1% | 15.1% | 23.9% | 35.2% |
| Retail | | 1.6% | 5.3% | 9.8% | 15.6% | 22.9% |
| Commercial | | 0.3% | 1.1% | 2.0% | 3.2% | 4.7% |
| Industrial | | -4.4% | -14.4% | -26.8% | -42.3% | -62.4% |
| Community Services | | 1.1% | 3.6% | 6.7% | 10.6% | 15.7% |
| Natural Resource Activity | | 2.1% | 6.8% | 12.6% | 20.0% | 29.4% |
| Surface parking | | 12.3% | 40.6% | 75.3% | 119.0% | 175.5% |
| Vacant | | 11.8% | 38.9% | 72.3% | 114.2% | 168.4% |
| TOTAL | | 0.000% | 0.000% | 0.000% | 0.000% | 0.000% |

Table 6.1B
KEIZER CITY - TAX BURDEN SHIFT, BY MAJOR LAND USE

| Major Land Use Class | CONVENTIONAL | | 2-RATE TAX | | | |
|-----------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | TAX | 55% LVT | 65% LVT | 75% LVT | 85% LVT | 95% LVT |
| Residential - Single Family | \$ 12,695,393 | \$ 12,725,047 | \$ 12,791,932 | \$ 12,871,272 | \$ 12,966,900 | \$ 13,084,408 |
| Residential - Multifamily | \$ 1,898,710 | \$ 1,841,414 | \$ 1,712,181 | \$ 1,558,885 | \$ 1,374,116 | \$ 1,147,071 |
| Residential - Mobile Home | \$ 302,603 | \$ 304,936 | \$ 310,197 | \$ 316,438 | \$ 323,960 | \$ 333,203 |
| Retail | \$ 548,561 | \$ 555,847 | \$ 572,279 | \$ 591,770 | \$ 615,264 | \$ 644,133 |
| Commercial | \$ 339,845 | \$ 343,844 | \$ 352,866 | \$ 363,567 | \$ 376,465 | \$ 392,314 |
| Industrial | \$ 53,349 | \$ 55,030 | \$ 58,821 | \$ 63,318 | \$ 68,739 | \$ 75,399 |
| Community Services | \$ 231,700 | \$ 235,382 | \$ 243,686 | \$ 253,537 | \$ 265,411 | \$ 280,001 |
| Natural Resource Activity | \$ 37,328 | \$ 37,817 | \$ 38,920 | \$ 40,228 | \$ 41,805 | \$ 43,743 |
| Surface parking | \$ 11,834 | \$ 13,301 | \$ 16,611 | \$ 20,537 | \$ 25,270 | \$ 31,085 |
| Vacant | \$ 56,678 | \$ 63,384 | \$ 78,508 | \$ 96,449 | \$ 118,073 | \$ 144,645 |
| TOTAL | \$ 16,176,001 | \$ 16,176,001 | \$ 16,176,001 | \$ 16,176,001 | \$ 16,176,001 | \$ 16,176,001 |

| Major Land Use Class | CONVENTIONAL | | PERCENTAGE CHANGE | | | |
|-----------------------------|--------------|---------------|-------------------|---------------|---------------|---------------|
| | TAX | 55% LVT | 65% LVT | 75% LVT | 85% LVT | 95% LVT |
| Residential - Single Family | | 0.2% | 0.8% | 1.4% | 2.1% | 3.1% |
| Residential - Multifamily | | -3.0% | -9.8% | -17.9% | -27.6% | -39.6% |
| Residential - Mobile Home | | 0.8% | 2.5% | 4.6% | 7.1% | 10.1% |
| Retail | | 1.3% | 4.3% | 7.9% | 12.2% | 17.4% |
| Commercial | | 1.2% | 3.8% | 7.0% | 10.8% | 15.4% |
| Industrial | | 3.2% | 10.3% | 18.7% | 28.8% | 41.3% |
| Community Services | | 1.6% | 5.2% | 9.4% | 14.5% | 20.8% |
| Natural Resource Activity | | 1.3% | 4.3% | 7.8% | 12.0% | 17.2% |
| Surface parking | | 12.4% | 40.4% | 73.6% | 113.5% | 162.7% |
| Vacant | | 11.8% | 38.5% | 70.2% | 108.3% | 155.2% |
| TOTAL | | 0.000% | 0.000% | 0.000% | 0.000% | 0.000% |

Table 6.1C
UNINCORPORATED - TAX BURDEN SHIFT, BY MAJOR LAND USE

| Major Land Use Class | CONVENTIONAL | | 2-RATE TAX | | | |
|-----------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | TAX | 55% LVT | 65% LVT | 75% LVT | 85% LVT | 95% LVT |
| Residential - Single Family | \$ 8,865,220 | \$ 8,904,092 | \$ 8,989,219 | \$ 9,085,856 | \$ 9,196,507 | \$ 9,324,457 |
| Residential - Multifamily | \$ 1,756,472 | \$ 1,693,510 | \$ 1,555,627 | \$ 1,399,101 | \$ 1,219,876 | \$ 1,012,630 |
| Residential - Mobile Home | \$ 380,660 | \$ 394,533 | \$ 424,917 | \$ 459,408 | \$ 498,901 | \$ 544,569 |
| Retail | \$ 822,797 | \$ 823,757 | \$ 825,858 | \$ 828,243 | \$ 830,974 | \$ 834,132 |
| Commercial | \$ 464,236 | \$ 465,357 | \$ 467,814 | \$ 470,602 | \$ 473,794 | \$ 477,486 |
| Industrial | \$ 92,857 | \$ 95,647 | \$ 101,757 | \$ 108,693 | \$ 116,635 | \$ 125,819 |
| Community Services | \$ 148,010 | \$ 149,637 | \$ 153,200 | \$ 157,246 | \$ 161,878 | \$ 167,234 |
| Natural Resource Activity | \$ 152,740 | \$ 151,272 | \$ 148,056 | \$ 144,406 | \$ 140,226 | \$ 135,393 |
| Surface parking | \$ 26,385 | \$ 29,048 | \$ 34,880 | \$ 41,500 | \$ 49,080 | \$ 57,845 |
| Vacant | \$ 26,631 | \$ 29,154 | \$ 34,680 | \$ 40,953 | \$ 48,135 | \$ 56,441 |
| TOTAL | \$ 12,736,007 | \$ 12,736,007 | \$ 12,736,007 | \$ 12,736,007 | \$ 12,736,007 | \$ 12,736,007 |

| Major Land Use Class | CONVENTIONAL | | PERCENTAGE CHANGE | | | |
|-----------------------------|--------------|---------------|-------------------|---------------|---------------|---------------|
| | TAX | 55% LVT | 65% LVT | 75% LVT | 85% LVT | 95% LVT |
| Residential - Single Family | | 0.4% | 1.4% | 2.5% | 3.7% | 5.2% |
| Residential - Multifamily | | -3.6% | -11.4% | -20.3% | -30.5% | -42.3% |
| Residential - Mobile Home | | 3.6% | 11.6% | 20.7% | 31.1% | 43.1% |
| Retail | | 0.1% | 0.4% | 0.7% | 1.0% | 1.4% |
| Commercial | | 0.2% | 0.8% | 1.4% | 2.1% | 2.9% |
| Industrial | | 3.0% | 9.6% | 17.1% | 25.6% | 35.5% |
| Community Services | | 1.1% | 3.5% | 6.2% | 9.4% | 13.0% |
| Natural Resource Activity | | -1.0% | -3.1% | -5.5% | -8.2% | -11.4% |
| Surface parking | | 10.1% | 32.2% | 57.3% | 86.0% | 119.2% |
| Vacant | | 9.5% | 30.2% | 53.8% | 80.7% | 111.9% |
| TOTAL | | 0.000% | 0.000% | 0.000% | 0.000% | 0.000% |

* Valid parcels

The effect of increasing the land tax rate relative to the improvement tax rate is illustrated in the series of graphs found in Figures 6.1A-C. The tax collected from land assessment increases with the graduated LVT level. Revenue values associated with the vertical axis on the graph series are found in the columns of the accompanying tables (Table 6.1).

Figure 6.1A
SALEM CITY - TAX BURDEN SHIFT UNDER A GRADUATED LAND VALUE TAX, BY GENERAL LAND USE

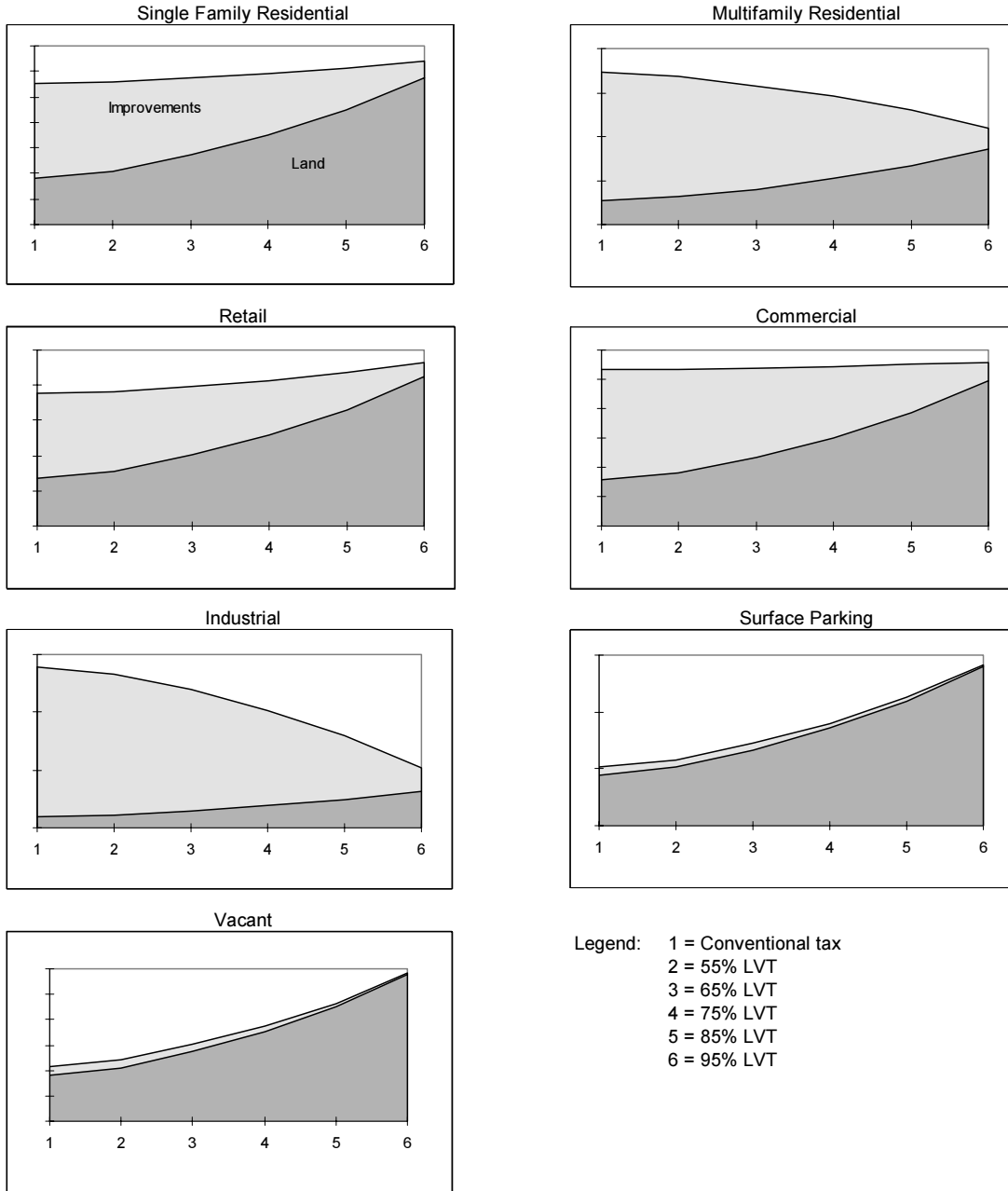


Figure 6.1B
 KEIZER CITY - TAX BURDEN SHIFT UNDER A GRADUATED LAND VALUE TAX, BY GENERAL LAND USE

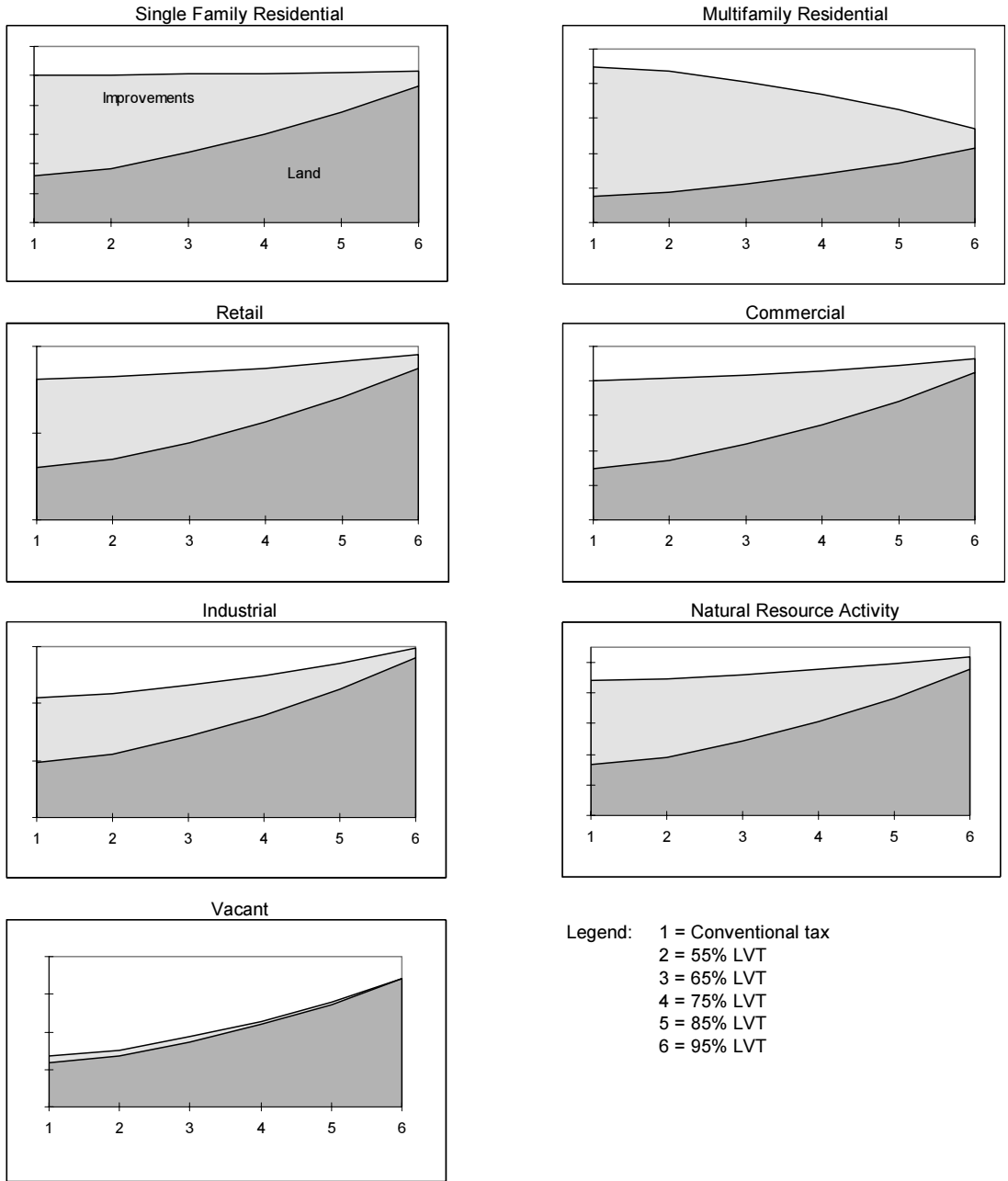
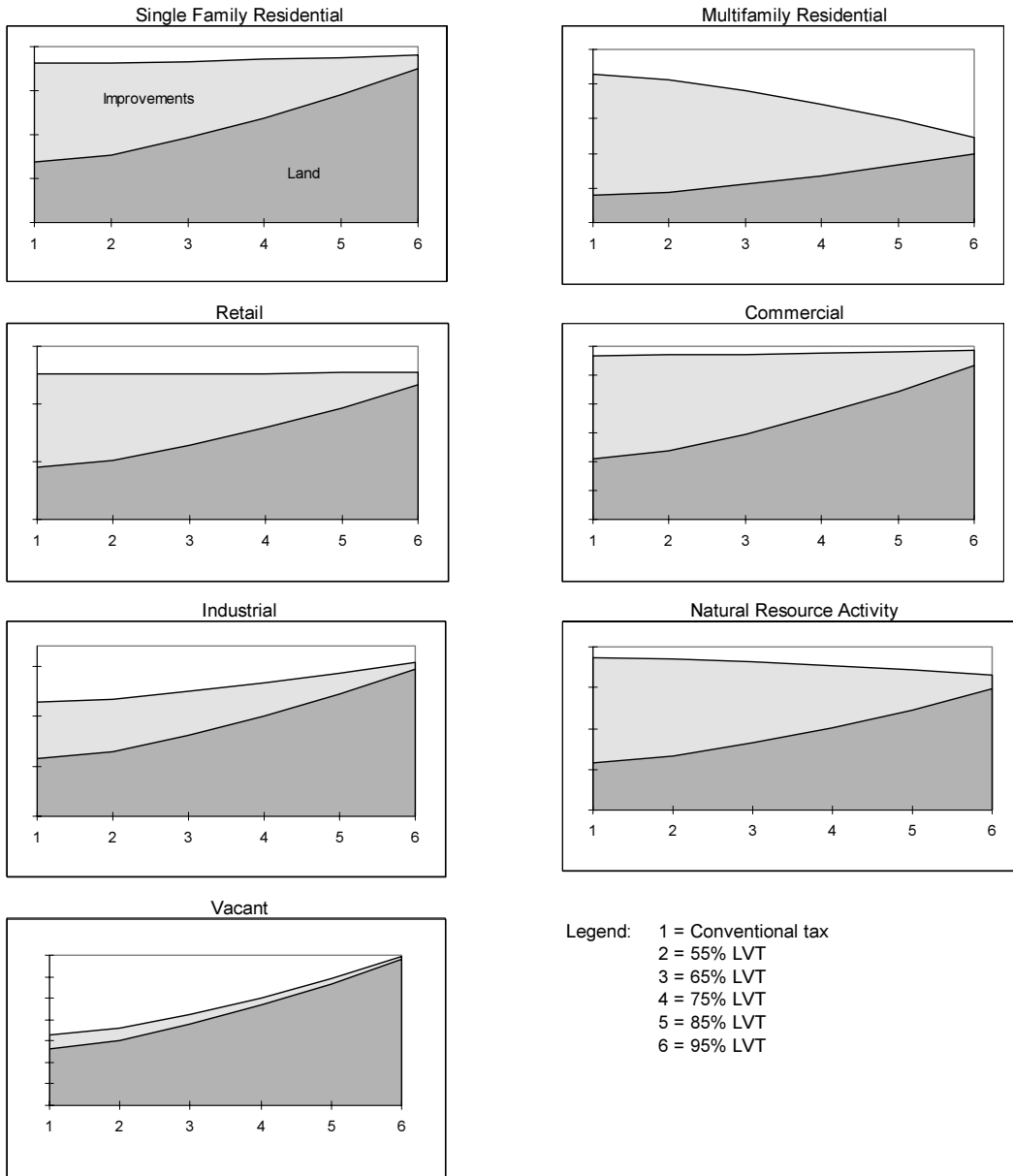


Figure 6.1C
 UNINCORPORATED - TAX BURDEN SHIFT UNDER A GRADUATED LAND VALUE TAX, BY GENERAL LAND USE



An examination of the generalized land use outcomes reveals significant differences across categories. Because of their comparatively low L-T-V ratios and presumably higher floor area ratios (a measure of building bulk), multifamily properties experience a maximum decline in tax burden under the 2-rate system, ranging from -36.5% in Salem City to -42.3% in the unincorporated sections of the county. (Maximum tax shift effects correspond to the 95% LVT.) Condominium units are excluded from the analysis because lot and building values are indistinguishable, but in all probability the tax burden results would be similar. Mobile home units vary in the degree of tax shift, but the trend is upward.

Retail properties experience an upward tax shift, although on average the trend is a moderate one. Commercial parcels also exhibit this trend, with an almost flat curve. The rate of increase in these two categories is negligible in the unincorporated area, probably due to generally lower site values.

The industrial category experiences the greatest variation by jurisdiction among all generalized land use classes. Industrial L-T-V ratios in Salem are as low as the multifamily groupings, typically the lowest among all use classes. This high ratio of improvement value results in a sharply downward tax shift. But, in Keizer and the unincorporated area, land value accounts for nearly half of the total valuation. Hence, the 2-rate tax burden increases by as much as 40 percent. A more detailed examination of land use codes within the industrial category uncovers the fact that nearly all of the processing and fabrication plants are located within Salem. These uses on the whole have considerably lower L-T-V ratios than do commercial shops which comprise 92% of the industrial parcels in Keizer and unincorporated areas.

Because of their minimal improvements, simulated tax yields from surface parking lots increase under the maximum land value tax level from about 120% in the lower site value jurisdiction of Keizer, to over 175% in higher value Salem City. Vacant lots follow the same trend. Natural resource activities, mostly farms, experience moderate tax burden increases within the two cities, and a moderate decline in the unincorporated area.

Land Use Classes

The Table 6.2 tabular series shows a more detailed breakdown of tax effects by land use class. As expected, 2-4 family unit buildings are subject to lower taxes under the 2-rate system, but not as low as the higher density multifamily buildings. Group quarters, including nursing homes, group care homes and retirement centers, show tax effects similar to the multifamily category, with somewhat greater reductions in the two cities.

Table 6.2A

SALEM CITY - TAX BURDEN SHIFT, BY LAND USE CLASS

| SUB TOTALS AND PERCENTAGE CHANGE | | | | | | |
|----------------------------------|---------------|----------------------|----------------------|---------------|----------------------|---------------|
| Land Use Description | # Parcels | 55% LVT | | | 95% LVT | |
| | | Conventional Tax | 2-Rate Tax | % Change | 2-Rate Tax | % Change |
| Single family detached | 25,141 | \$ 41,232,784 | \$ 41,673,575 | 1.1% | \$ 47,535,947 | 15.3% |
| Multi-family 2-4 units | 942 | \$ 1,759,238 | \$ 1,755,479 | -0.2% | \$ 1,705,487 | -3.1% |
| Multi-family apartments | 616 | \$ 5,492,969 | \$ 5,318,825 | -3.2% | \$ 3,002,765 | -45.3% |
| Mobil home park units | 494 | \$ 1,163,445 | \$ 1,192,105 | 2.5% | \$ 1,573,277 | 35.2% |
| Group quarters | 25 | \$ 499,520 | \$ 479,502 | -4.0% | \$ 213,279 | -57.3% |
| Homestead | 65 | \$ 231,026 | \$ 235,102 | 1.8% | \$ 289,313 | 25.2% |
| Hotel | 28 | \$ 766,638 | \$ 749,450 | -2.2% | \$ 520,846 | -32.1% |
| Retail store | 444 | \$ 4,723,379 | \$ 4,784,408 | 1.3% | \$ 5,596,081 | 18.5% |
| Retail - restaurant, lounge | 165 | \$ 924,830 | \$ 954,446 | 3.2% | \$ 1,348,326 | 45.8% |
| Commercial services | 54 | \$ 629,482 | \$ 635,278 | 0.9% | \$ 712,368 | 13.2% |
| Commercial - auto related | 187 | \$ 1,025,445 | \$ 1,070,009 | 4.3% | \$ 1,662,695 | 62.1% |
| Office | 500 | \$ 3,582,205 | \$ 3,572,258 | -0.3% | \$ 3,439,956 | -4.0% |
| Public / semi-public building | 143 | \$ 1,031,955 | \$ 1,038,346 | 0.6% | \$ 1,123,341 | 8.9% |
| Recreation facility - outdoor | 18 | \$ 238,134 | \$ 245,680 | 3.2% | \$ 346,049 | 45.3% |
| Warehouse | 331 | \$ 1,987,230 | \$ 1,990,511 | 0.2% | \$ 2,034,143 | 2.4% |
| Industrial | 393 | \$ 10,450,678 | \$ 9,994,737 | -4.4% | \$ 3,930,887 | -62.4% |
| Farm | 66 | \$ 87,041 | \$ 88,834 | 2.1% | \$ 112,669 | 29.4% |
| Surface Parking | 227 | \$ 308,722 | \$ 346,614 | 12.3% | \$ 850,559 | 175.5% |
| Vacant | 158 | \$ 81,178 | \$ 90,740 | 11.8% | \$ 217,910 | 168.4% |
| TOTAL | 29,997 | \$ 76,215,898 | \$ 76,215,898 | 0.000% | \$ 76,215,898 | 0.000% |

Within the retail category, restaurants and lounges show greater increases than stores, possibly due to the surface parking expanses that often accompany fast food establishments. Commercial services in Salem City experience more moderate tax increases than auto-related commercial activities in the same jurisdiction and all commercial activities in the other jurisdictions. The only non-residential uses that receive significant tax reductions as a result of changing to a land tax system are offices—in all jurisdictions, and warehouses in the unincorporated area, and industrial uses in Salem.

Table 6.2B

KEIZER CITY - TAX BURDEN SHIFT, BY LAND USE CLASS

| SUB TOTALS AND PERCENTAGE CHANGE | | | | | | |
|----------------------------------|--------------|----------------------|----------------------|---------------|----------------------|---------------|
| Land Use Description | # Parcels | Conventional Tax | 55% LVT | | 95% LVT | |
| | | | 2-Rate Tax | % Change | 2-Rate Tax | % Change |
| Single family detached | 7,618 | \$ 12,669,574 | \$ 12,698,883 | 0.2% | \$ 13,054,054 | 3.0% |
| Multi-family 2-4 units | 306 | \$ 635,103 | \$ 627,805 | -1.1% | \$ 539,362 | -15.1% |
| Multi-family apartments | 192 | \$ 1,132,168 | \$ 1,087,910 | -3.9% | \$ 551,574 | -51.3% |
| Mobil home park units | 111 | \$ 302,603 | \$ 304,936 | 0.8% | \$ 333,203 | 10.1% |
| Group quarters | 10 | \$ 131,439 | \$ 125,699 | -4.4% | \$ 56,135 | -57.3% |
| Homestead | 8 | \$ 25,819 | \$ 26,165 | 1.3% | \$ 30,354 | 17.6% |
| Hotel | 1 | \$ 26,797 | \$ 26,105 | -2.6% | \$ 17,718 | -33.9% |
| Retail store | 58 | \$ 427,775 | \$ 431,454 | 0.9% | \$ 476,035 | 11.3% |
| Retail - restaurant, lounge | 30 | \$ 120,786 | \$ 124,393 | 3.0% | \$ 168,098 | 39.2% |
| Commercial services | 6 | \$ 41,604 | \$ 43,839 | 5.4% | \$ 70,917 | 70.5% |
| Commercial - auto related | 14 | \$ 56,112 | \$ 58,738 | 4.7% | \$ 90,555 | 61.4% |
| Office | 30 | \$ 132,394 | \$ 131,773 | -0.5% | \$ 124,252 | -6.1% |
| Public / semi-public building | 9 | \$ 77,463 | \$ 78,178 | 0.9% | \$ 86,846 | 12.1% |
| Recreation facility - outdoor | 11 | \$ 154,237 | \$ 157,204 | 1.9% | \$ 193,155 | 25.2% |
| Warehouse | 19 | \$ 82,937 | \$ 83,390 | 0.5% | \$ 88,871 | 7.2% |
| Industrial | 27 | \$ 53,349 | \$ 55,030 | 3.2% | \$ 75,399 | 41.3% |
| Farm | 56 | \$ 37,328 | \$ 37,817 | 1.3% | \$ 43,743 | 17.2% |
| Surface Parking | 11 | \$ 11,834 | \$ 13,301 | 12.4% | \$ 31,085 | 162.7% |
| Vacant | 128 | \$ 56,678 | \$ 63,384 | 11.8% | \$ 144,645 | 155.2% |
| TOTAL | 8,645 | \$ 16,176,001 | \$ 16,176,001 | 0.000% | \$ 16,176,001 | 0.000% |

Table 6.2C

UNINCORPORATED - TAX BURDEN SHIFT, BY LAND USE CLASS

| SUB TOTALS AND PERCENTAGE CHANGE | | | | | | |
|----------------------------------|--------------|----------------------|----------------------|---------------|----------------------|---------------|
| Land Use Description | # Parcels | Conventional Tax | 55% LVT | | 95% LVT | |
| | | | 2-Rate Tax | % Change | 2-Rate Tax | % Change |
| Single family detached | 7,073 | \$ 8,201,218 | \$ 8,235,616 | 0.4% | \$ 8,607,598 | 5.0% |
| Multi-family 2-4 units | 420 | \$ 589,942 | \$ 583,880 | -1.0% | \$ 518,323 | -12.1% |
| Multi-family apartments | 175 | \$ 1,160,247 | \$ 1,103,493 | -4.9% | \$ 489,747 | -57.8% |
| Mobil home park units | 335 | \$ 380,660 | \$ 394,533 | 3.6% | \$ 544,569 | 43.1% |
| Group quarters | 2 | \$ 6,283 | \$ 6,137 | -2.3% | \$ 4,561 | -27.4% |
| Homestead | 338 | \$ 664,002 | \$ 668,476 | 0.7% | \$ 716,859 | 8.0% |
| Hotel | - | \$ - | \$ - | | \$ - | |
| Retail store | 78 | \$ 691,052 | \$ 690,413 | -0.1% | \$ 683,496 | -1.1% |
| Retail - restaurant, lounge | 33 | \$ 131,745 | \$ 133,344 | 1.2% | \$ 150,636 | 14.3% |
| Commercial services | 9 | \$ 60,872 | \$ 63,022 | 3.5% | \$ 86,265 | 41.7% |
| Commercial - auto related | 35 | \$ 127,399 | \$ 129,942 | 2.0% | \$ 157,444 | 23.6% |
| Office | 22 | \$ 124,321 | \$ 121,758 | -2.1% | \$ 94,039 | -24.4% |
| Public / semi-public building | 14 | \$ 37,616 | \$ 38,023 | 1.1% | \$ 42,427 | 12.8% |
| Recreation facility - outdoor | 13 | \$ 110,393 | \$ 111,613 | 1.1% | \$ 124,807 | 13.1% |
| Warehouse | 29 | \$ 151,643 | \$ 150,636 | -0.7% | \$ 139,739 | -7.9% |
| Industrial | 37 | \$ 92,857 | \$ 95,647 | 3.0% | \$ 125,819 | 35.5% |
| Farm | 238 | \$ 152,740 | \$ 151,272 | -1.0% | \$ 135,393 | -11.4% |
| Surface Parking | 32 | \$ 26,385 | \$ 29,048 | 10.1% | \$ 57,845 | 119.2% |
| Vacant | 60 | \$ 26,631 | \$ 29,154 | 9.5% | \$ 56,441 | 111.9% |
| TOTAL | 8,943 | \$ 12,736,007 | \$ 12,736,007 | 0.000% | \$ 12,736,007 | 0.000% |

Clearly, the most significant upward tax shift occurs in conjunction with underutilized sites—parking lots and vacant sites.

The extent of tax shift can be illustrated in the form of mean annual tax liability per parcel, found in Tables 6.3A-C. On a dollar basis, industrial sites would pay among the highest conventional (RMV) taxes in Salem City (over \$26,000). But, because of high building values, their 2-rate liability would be decreased to an average of about \$10,000 under the highest differential tax level. Conventional taxes on suburban industrial sites are much lower (about \$2,300), yet they would increase to about \$3,200 under the maximum differential tax.

Table 6.3A

SALEM CITY - TAX BURDEN SHIFT, BY LAND USE CLASS

MEAN TAX BURDEN: CONVENTIONAL AND LVT

| Land Use Description | # Parcels | Conventional Mean Tax | 55% LVT 2-Rate Mean Tax | 95% LVT 2-Rate Mean Tax |
|-------------------------------|-----------|--------------------------|-------------------------------|-------------------------------|
| Single family detached | 25,141 | \$ 1,640 | \$ 1,658 | \$ 1,891 |
| Multi-family 2-4 units | 942 | \$ 1,868 | \$ 1,864 | \$ 1,810 |
| Multi-family apartments | 616 | \$ 8,917 | \$ 8,634 | \$ 4,875 |
| Mobil home park units | 494 | \$ 2,355 | \$ 2,413 | \$ 3,185 |
| Group quarters | 25 | \$ 19,981 | \$ 19,180 | \$ 8,531 |
| Homestead | 65 | \$ 3,554 | \$ 3,617 | \$ 4,451 |
| Hotel | 28 | \$ 27,380 | \$ 26,766 | \$ 18,602 |
| Retail store | 444 | \$ 10,638 | \$ 10,776 | \$ 12,604 |
| Retail - restaurant, lounge | 165 | \$ 5,605 | \$ 5,785 | \$ 8,172 |
| Commercial services | 54 | \$ 11,657 | \$ 11,764 | \$ 13,192 |
| Commercial - auto related | 187 | \$ 5,484 | \$ 5,722 | \$ 8,891 |
| Office | 500 | \$ 7,164 | \$ 7,145 | \$ 6,880 |
| Public / semi-public building | 143 | \$ 7,216 | \$ 7,261 | \$ 7,856 |
| Recreation facility - outdoor | 18 | \$ 13,230 | \$ 13,649 | \$ 19,225 |
| Warehouse | 331 | \$ 6,004 | \$ 6,014 | \$ 6,145 |
| Industrial | 393 | \$ 26,592 | \$ 25,432 | \$ 10,002 |
| Farm | 66 | \$ 1,319 | \$ 1,346 | \$ 1,707 |
| Surface Parking | 227 | \$ 1,360 | \$ 1,527 | \$ 3,747 |
| Vacant | 158 | \$ 514 | \$ 574 | \$ 1,379 |

Table 6.3B

KEIZER CITY - TAX BURDEN SHIFT, BY LAND USE CLASS

MEAN TAX BURDEN: CONVENTIONAL AND LVT

| Land Use Description | # Parcels | Conventional Mean Tax | 55% LVT 2-Rate Mean Tax | 95% LVT 2-Rate Mean Tax |
|-------------------------------|-----------|--------------------------|-------------------------------|-------------------------------|
| Single family detached | 7,618 | \$ 1,663 | \$ 1,667 | \$ 1,714 |
| Multi-family 2-4 units | 306 | \$ 2,076 | \$ 2,052 | \$ 1,763 |
| Multi-family apartments | 192 | \$ 5,897 | \$ 5,666 | \$ 2,873 |
| Mobil home park units | 111 | \$ 2,726 | \$ 2,747 | \$ 3,002 |
| Group quarters | 10 | \$ 13,144 | \$ 12,570 | \$ 5,613 |
| Homestead | 8 | \$ 3,227 | \$ 3,271 | \$ 3,794 |
| Hotel | 1 | \$ 26,797 | \$ 26,105 | \$ 17,718 |
| Retail store | 58 | \$ 7,375 | \$ 7,439 | \$ 8,208 |
| Retail - restaurant, lounge | 30 | \$ 4,026 | \$ 4,146 | \$ 5,603 |
| Commercial services | 6 | \$ 6,934 | \$ 7,306 | \$ 11,819 |
| Commercial - auto related | 14 | \$ 4,008 | \$ 4,196 | \$ 6,468 |
| Office | 30 | \$ 4,413 | \$ 4,392 | \$ 4,142 |
| Public / semi-public building | 9 | \$ 8,607 | \$ 8,686 | \$ 9,650 |
| Recreation facility - outdoor | 11 | \$ 14,022 | \$ 14,291 | \$ 17,560 |
| Warehouse | 19 | \$ 4,365 | \$ 4,389 | \$ 4,677 |
| Industrial | 27 | \$ 1,976 | \$ 2,038 | \$ 2,793 |
| Farm | 56 | \$ 667 | \$ 675 | \$ 781 |
| Surface Parking | 11 | \$ 1,076 | \$ 1,209 | \$ 2,826 |
| Vacant | 128 | \$ 443 | \$ 495 | \$ 1,130 |

Table 6.3C

UNINCORPORATED - TAX BURDEN SHIFT, BY LAND USE CLASS
MEAN TAX BURDEN: CONVENTIONAL AND LVT

| Land Use Description | # Parcels | Conventional Mean Tax | 55% LVT | 95% LVT |
|-------------------------------|-----------|--------------------------|--------------------|--------------------|
| | | | 2-Rate Mean Tax | 2-Rate Mean Tax |
| Single family detached | 7,073 | \$ 1,160 | \$ 1,164 | \$ 1,217 |
| Multi-family 2-4 units | 420 | \$ 1,405 | \$ 1,390 | \$ 1,234 |
| Multi-family apartments | 175 | \$ 6,630 | \$ 6,306 | \$ 2,799 |
| Mobil home park units | 336 | \$ 1,136 | \$ 1,178 | \$ 1,626 |
| Group quarters | 2 | \$ 3,141 | \$ 3,069 | \$ 2,280 |
| Homestead | 351 | \$ 1,965 | \$ 1,978 | \$ 2,121 |
| Hotel | - | | | |
| Retail store | 78 | \$ 8,860 | \$ 8,851 | \$ 8,763 |
| Retail - restaurant, lounge | 33 | \$ 3,992 | \$ 4,041 | \$ 4,565 |
| Commercial services | 9 | \$ 6,764 | \$ 7,002 | \$ 9,585 |
| Commercial - auto related | 35 | \$ 3,640 | \$ 3,713 | \$ 4,498 |
| Office | 22 | \$ 5,651 | \$ 5,534 | \$ 4,274 |
| Public / semi-public building | 14 | \$ 2,687 | \$ 2,716 | \$ 3,031 |
| Recreation facility - outdoor | 13 | \$ 8,492 | \$ 8,586 | \$ 9,601 |
| Warehouse | 29 | \$ 5,229 | \$ 5,194 | \$ 4,819 |
| Industrial | 47 | \$ 2,510 | \$ 2,585 | \$ 3,401 |
| Farm | 238 | \$ 642 | \$ 636 | \$ 569 |
| Surface Parking | 32 | \$ 825 | \$ 908 | \$ 1,808 |
| Vacant | 60 | \$ 444 | \$ 486 | \$ 941 |

* Valid cases

Again, because the large volume of single family properties predetermine the overall L-T-V, mean tax increases in this category tend to be modest, ranging from about \$250 in Salem City to well under \$100 in the suburban areas. Because of the observed uniformity in value ratios (discussed in Chapter 4), there would not be large differences in tax burden shift by lot size.

Underutilized sites would pay more than two and a half times the annual tax under a maximum differential tax than under the conventional tax. But land assessments on these sites are low; conventional taxes on vacant sites now average less than \$400 per year. On surface parking lots, taxes vary from \$825 to \$1,360. The resulting 2-rate dollar revenues are still relatively modest. On vacant lots, taxes are well below that of average single family parcels; on parking lots, they are roughly equivalent to the taxes on homesteads.

Tax Burden Shift by Sub Area

An examination of the jurisdiction and sub area tax simulation outcomes reveals changes in tax burden across parcel aggregations. Table 6.4 is a cross tabulation of results, divulging the differences that jurisdictional tax rates produce within overlapping sub areas. Overall, properties within the Salem central business district are subject to higher taxes under the 2-rate system (see Table 6.4C). The greater difference, however, occurs between developed and undeveloped parcels (Tables 6.4 A and C).

The vast majority of developed properties would see a reduction in tax burden, although many properties within the incorporated areas of the East sub area would see an increase.

Undeveloped parcels comprise over 10 percent of the total properties. Regardless of their location by sub area, these sites would experience high rates of tax increase under the maximum LVT, ranging from 200% in Salem City to 147% in the unincorporated areas.

The overall effect of introducing the 2-rate tax through a graduated rate structure is illustrated in Figure 6.2. The area graphs show moderately decreasing tax burden on developed parcels, and notable increases in tax burden on undeveloped parcels.

Table 6.4A

TAX BURDEN SHIFT, BY SUB AREA

DEVELOPED PARCELS

| Jurisdiction and Sub Area | | | 55% LVT | | | 95% LVT | |
|-------------------------------|---------------|-----------------------|-----------------------|--------------|----------------------|---------------|----|
| Area | # Parcels | Conventional Tax | 2-Rate Tax | % Change | 2-Rate Tax | % Change | |
| SALEM CITY | | | | | | | |
| CBD | 5,145 | \$ 11,266,607 | \$ 11,379,373 | 1.0% | \$ 12,800,342 | 13.6% | |
| Central | 8,191 | \$ 20,562,850 | \$ 20,473,114 | -0.4% | \$ 19,342,350 | -5.9% | |
| North | 103 | \$ 648,481 | \$ 639,512 | -1.4% | \$ 526,498 | -18.8% | |
| South | 12,676 | \$ 33,996,398 | \$ 33,597,824 | -1.2% | \$ 28,575,379 | -15.9% | |
| East | 3,748 | \$ 9,671,604 | \$ 9,723,315 | 0.5% | \$ 10,374,930 | 7.3% | |
| TOTAL | 29,863 | \$ 76,145,940 | \$ 75,813,139 | -0.4% | \$ 71,619,500 | -5.9% | |
| KEIZER CITY | | | | | | | |
| CBD | - | \$ - | \$ - | | \$ - | | |
| Central | 1,042 | \$ 2,099,836 | \$ 2,096,933 | -0.1% | \$ 2,063,434 | -1.7% | |
| North | 7,446 | \$ 14,006,712 | \$ 13,939,503 | -0.5% | \$ 13,164,156 | -6.0% | |
| South | - | \$ - | \$ - | | \$ - | | |
| East | 1 | \$ 936 | \$ 950 | 1.5% | \$ 1,114 | 19.0% | |
| TOTAL | 8,489 | \$ 16,107,484 | \$ 16,037,386 | -0.4% | \$ 15,228,704 | -5.5% | |
| UNINCORPORATED | | | | | | | |
| CBD | - | \$ - | \$ - | | \$ - | | |
| Central | 48 | \$ 65,083 | \$ 64,296 | -1.2% | \$ 56,121 | -13.8% | |
| North | 61 | \$ 126,984 | \$ 124,210 | -2.2% | \$ 95,382 | -24.9% | |
| South | 636 | \$ 1,470,272 | \$ 1,467,106 | -0.2% | \$ 1,434,197 | -2.5% | |
| East | 8,008 | \$ 11,002,557 | \$ 10,960,968 | -0.4% | \$ 10,528,760 | -4.3% | |
| TOTAL | 8,753 | \$ 12,664,897 | \$ 12,616,580 | -0.4% | \$ 12,114,460 | -4.3% | |
| COMBINED JURISDICTIONS | | | | | | | |
| CBD | 5,145 | \$ 11,266,607 | \$ 11,379,373 | 1.0% | \$ 12,800,342 | 13.6% | |
| Central | 9,281 | \$ 22,727,769 | \$ 22,634,343 | -0.4% | \$ 21,461,905 | -5.6% | |
| North | 7,610 | \$ 14,782,176 | \$ 14,703,225 | -0.5% | \$ 13,786,036 | -6.7% | |
| South | 13,312 | \$ 35,466,671 | \$ 35,064,930 | -1.1% | \$ 30,009,576 | -15.4% | |
| East | 11,757 | \$ 20,675,098 | \$ 20,685,234 | 0.0% | \$ 20,904,805 | 1.1% | |
| TOTAL | 47,105 | \$ 104,918,320 | \$ 104,467,105 | -0.4% | \$ 98,962,664 | -5.7% | Th |

Tax burden shift is expressed in mean dollar amounts, as shown in Table 6.5. The annual mean tax for all *developed* parcels in Salem City under the conventional system is \$2,550. Under the maximum 2-rate tax, the same parcels would see an average 6% reduction to about \$2,400. Mean taxes are lower in the remaining two jurisdictions; the tax shift is roughly proportional, though more moderate. Mean tax billings shift upwards in the Salem CBD, from a lower than city average of \$2,190, to about \$2,490—an upward shift of 13.6 percent. Tax burdens on developed parcels in most sub areas would shift downward. The greatest negative tax shift occurs in the South sub area, from a conventional mean of about \$2,660 to a 95% LVT mean of about \$2,250.

Table 6.4B

TAX BURDEN SHIFT, BY SUB AREA**UNDEVELOPED PARCELS**

| Jurisdiction and Sub Area | | 55% LVT | | | | 95% LVT | |
|-------------------------------|--------------|---------------------|---------------------|--------------|---------------------|---------------|--|
| Area | # Parcels | Conventional Tax | 2-Rate Tax | % Change | 2-Rate Tax | % Change | |
| SALEM CITY | | | | | | | |
| CBD | 335 | \$ 329,500 | \$ 377,776 | 14.7% | \$ 986,109 | 199.3% | |
| Central | 772 | \$ 519,337 | \$ 595,427 | 14.7% | \$ 1,554,244 | 199.3% | |
| North | 60 | \$ 111,394 | \$ 127,715 | 14.7% | \$ 333,373 | 199.3% | |
| South | 1,487 | \$ 862,142 | \$ 988,458 | 14.7% | \$ 2,580,170 | 199.3% | |
| East | 647 | \$ 449,087 | \$ 514,885 | 14.7% | \$ 1,344,003 | 199.3% | |
| TOTAL | 3,301 | \$ 2,271,459 | \$ 2,604,260 | 14.7% | \$ 6,797,899 | 199.3% | |
| KEIZER CITY | | | | | | | |
| CBD | - | \$ - | \$ - | - | \$ - | - | |
| Central | 90 | \$ 40,679 | \$ 46,324 | 13.9% | \$ 111,455 | 174.0% | |
| North | 999 | \$ 464,396 | \$ 528,849 | 13.9% | \$ 1,272,400 | 174.0% | |
| South | - | \$ - | \$ - | - | \$ - | - | |
| East | - | \$ - | \$ - | - | \$ - | - | |
| TOTAL | 1,089 | \$ 505,075 | \$ 575,173 | 13.9% | \$ 1,383,855 | 174.0% | |
| UNINCORPORATED | | | | | | | |
| CBD | - | \$ - | \$ - | - | \$ - | - | |
| Central | 44 | \$ 13,344 | \$ 15,063 | 12.9% | \$ 32,934 | 146.8% | |
| North | 36 | \$ 9,475 | \$ 10,697 | 12.9% | \$ 23,387 | 146.8% | |
| South | 305 | \$ 142,139 | \$ 160,457 | 12.9% | \$ 350,824 | 146.8% | |
| East | 675 | \$ 209,953 | \$ 237,011 | 12.9% | \$ 518,202 | 146.8% | |
| TOTAL | 1,060 | \$ 374,911 | \$ 423,228 | 12.9% | \$ 925,348 | 146.8% | |
| COMBINED JURISDICTIONS | | | | | | | |
| CBD | 335 | \$ 329,500 | \$ 377,776 | 14.7% | \$ 986,109 | 199.3% | |
| Central | 906 | \$ 573,359 | \$ 656,815 | 14.6% | \$ 1,698,633 | 196.3% | |
| North | 1,095 | \$ 585,266 | \$ 667,260 | 14.0% | \$ 1,629,160 | 178.4% | |
| South | 1,792 | \$ 1,004,280 | \$ 1,148,914 | 14.4% | \$ 2,930,994 | 191.9% | |
| East | 1,322 | \$ 659,040 | \$ 751,896 | 14.1% | \$ 1,862,205 | 182.6% | |
| TOTAL | 5,450 | \$ 3,151,446 | \$ 3,602,661 | 14.3% | \$ 9,107,102 | 189.0% | |

Table 6.4C

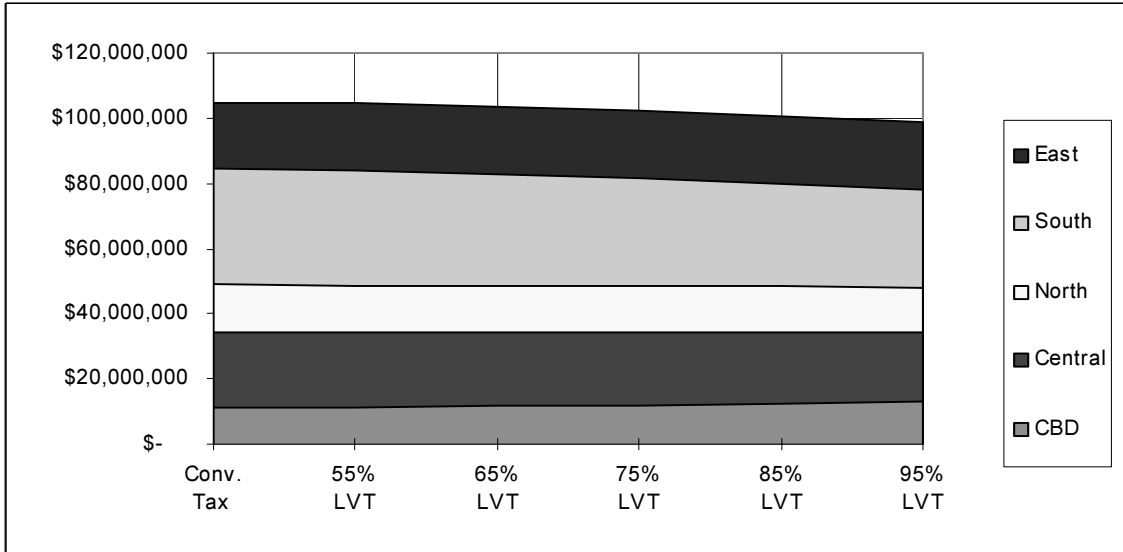
TAX BURDEN SHIFT, BY SUB AREA**ALL VALID PARCELS**

| Jurisdiction and Sub Area | | 55% LVT | | | 95% LVT | |
|---------------------------|---------------|-----------------------|-----------------------|--------------|-----------------------|--------------|
| Area | # Parcels | Conventional Tax | 2-Rate Tax | % Change | 2-Rate Tax | % Change |
| CBD | 5,480 | \$ 11,596,106 | \$ 11,757,149 | 1.4% | \$ 13,786,451 | 18.9% |
| Central | 10,187 | \$ 23,301,128 | \$ 23,291,158 | 0.0% | \$ 23,160,539 | -0.6% |
| North | 8,705 | \$ 15,367,442 | \$ 15,370,485 | 0.0% | \$ 15,415,196 | 0.3% |
| South | 15,104 | \$ 36,470,951 | \$ 36,213,844 | -0.7% | \$ 32,940,570 | -9.7% |
| East | 13,079 | \$ 21,334,138 | \$ 21,437,130 | 0.5% | \$ 22,767,010 | 6.7% |
| TOTAL | 52,555 | \$ 108,069,766 | \$ 108,069,766 | 0.0% | \$ 108,069,766 | 0.0% |

In the aggregate, mean taxes on *undeveloped* parcels would rise from the conventional mean of \$578 to a 2-rate maximum of \$1,671. This average tax shift of 190 percent is considerable, but is still less than the 2-rate mean on all developed parcels. Nevertheless, on an individual case basis, the tax burden increase may be sufficient to induce capital investments. In the Salem CBD, the mean 2-rate tax on undeveloped sites (about \$2,940) is higher than the mean tax on developed or undeveloped properties in all sub areas, including the downtown area.

Figure 6.2

**TAX BURDEN SHIFT, BY SUB AREA: GRADUATED 2-RATE TAX
DEVELOPED PARCELS**



UNDEVELOPED PARCELS

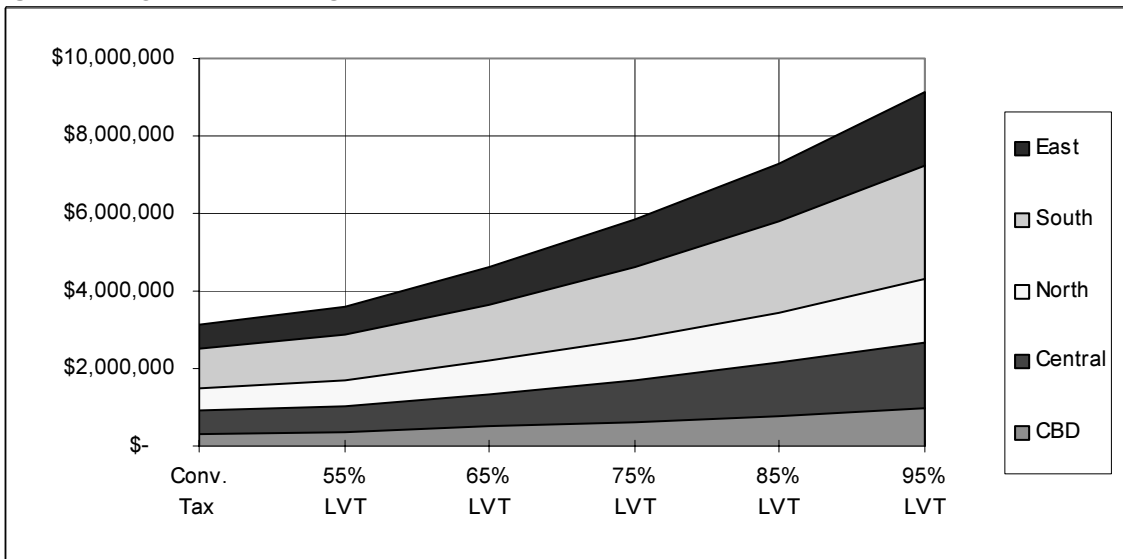


Table 6.5

TAX BURDEN SHIFT, BY JURISDICTION AND SUB AREA, BY DEVELOPED STATUS

MEAN TAX BURDEN: CONVENTIONAL AND LVT

DEVELOPED PARCELS

| Jurisdiction | # Parcels | Conventional Tax | Conventional Mean Tax | 55% LVT | | 95% LVT | |
|----------------|---------------|-----------------------|-----------------------|-----------------------|-----------------|----------------------|-----------------|
| | | | | 2-Rate Tax | 2-Rate Mean Tax | 2-Rate Tax | 2-Rate Mean Tax |
| SALEM CITY | 29,863 | \$ 76,145,940 | \$ 2,550 | \$ 75,813,139 | \$ 2,539 | \$ 71,619,500 | \$ 2,398 |
| KEIZER CITY | 8,489 | \$ 16,107,484 | \$ 1,897 | \$ 16,037,386 | \$ 1,889 | \$ 15,228,704 | \$ 1,794 |
| UNINCORPORATED | 8,753 | \$ 12,664,897 | \$ 1,447 | \$ 12,616,580 | \$ 1,441 | \$ 12,114,460 | \$ 1,384 |
| Sub Area | # Parcels | Conventional Tax | Conventional Mean Tax | 2-Rate Tax | 2-Rate Mean Tax | 2-Rate Tax | 2-Rate Mean Tax |
| CBD | 5,145 | \$ 11,266,607 | \$ 2,190 | \$ 11,379,373 | \$ 2,212 | \$ 12,800,342 | \$ 2,488 |
| Central | 9,281 | \$ 22,727,769 | \$ 2,449 | \$ 22,634,343 | \$ 2,439 | \$ 21,461,905 | \$ 2,312 |
| North | 7,610 | \$ 14,782,176 | \$ 1,942 | \$ 14,703,225 | \$ 1,932 | \$ 13,786,036 | \$ 1,812 |
| South | 13,312 | \$ 35,466,671 | \$ 2,664 | \$ 35,064,930 | \$ 2,634 | \$ 30,009,576 | \$ 2,254 |
| East | 11,757 | \$ 20,675,098 | \$ 1,759 | \$ 20,685,234 | \$ 1,759 | \$ 20,904,805 | \$ 1,778 |
| TOTAL | 47,105 | \$ 104,918,320 | \$ 2,227 | \$ 104,467,105 | \$ 2,218 | \$ 98,962,664 | \$ 2,101 |

UNDEVELOPED PARCELS

| Jurisdiction | # Parcels | Conventional Tax | Conventional Mean Tax | 55% LVT | | 95% LVT | |
|----------------|--------------|---------------------|-----------------------|---------------------|-----------------|---------------------|-----------------|
| | | | | 2-Rate Tax | 2-Rate Mean Tax | 2-Rate Tax | 2-Rate Mean Tax |
| SALEM CITY | 3,301 | \$ 2,271,459 | \$ 688 | \$ 2,604,260 | \$ 789 | \$ 6,797,899 | \$ 2,059 |
| KEIZER CITY | 1,089 | \$ 505,075 | \$ 464 | \$ 575,173 | \$ 528 | \$ 1,383,855 | \$ 1,271 |
| UNINCORPORATED | 1,060 | \$ 374,911 | \$ 354 | \$ 423,228 | \$ 399 | \$ 925,348 | \$ 873 |
| Sub Area | # Parcels | Conventional Tax | Conventional Mean Tax | 2-Rate Tax | 2-Rate Mean Tax | 2-Rate Tax | 2-Rate Mean Tax |
| CBD | 335 | \$ 329,500 | \$ 984 | \$ 377,776 | \$ 1,128 | \$ 986,109 | \$ 2,944 |
| Central | 906 | \$ 573,359 | \$ 633 | \$ 656,815 | \$ 725 | \$ 1,698,633 | \$ 1,875 |
| North | 1,095 | \$ 585,266 | \$ 534 | \$ 667,260 | \$ 609 | \$ 1,629,160 | \$ 1,488 |
| South | 1,792 | \$ 1,004,280 | \$ 560 | \$ 1,148,914 | \$ 641 | \$ 2,930,994 | \$ 1,636 |
| East | 1,322 | \$ 659,040 | \$ 499 | \$ 751,896 | \$ 569 | \$ 1,862,205 | \$ 1,409 |
| TOTAL | 5,450 | \$ 3,151,446 | \$ 578 | \$ 3,602,661 | \$ 661 | \$ 9,107,102 | \$ 1,671 |

MEAN TAX BURDEN: CONVENTIONAL AND LVT*

ALL VALID PARCELS

| Jurisdiction | # Parcels | Conventional Tax | Conventional Mean Tax | 55% LVT | | 95% LVT | |
|-----------------------|---------------|-----------------------|-----------------------|-----------------------|-----------------|-----------------------|-----------------|
| | | | | 2-Rate Tax | 2-Rate Mean Tax | 2-Rate Tax | 2-Rate Mean Tax |
| SALEM CITY | 33,164 | \$ 78,417,399 | \$ 2,365 | \$ 78,417,399 | \$ 2,365 | \$ 78,417,399 | \$ 2,365 |
| KEIZER CITY | 9,578 | \$ 16,612,559 | \$ 1,734 | \$ 16,612,559 | \$ 1,734 | \$ 16,612,559 | \$ 1,734 |
| UNINCORPORATED | 9,813 | \$ 13,039,808 | \$ 1,329 | \$ 13,039,808 | \$ 1,329 | \$ 13,039,808 | \$ 1,329 |
| Sub Area | # Parcels | Conventional Tax | Conventional Mean Tax | 2-Rate Tax | 2-Rate Mean Tax | 2-Rate Tax | 2-Rate Mean Tax |
| CBD | 5,480 | \$ 11,596,106 | \$ 2,116 | \$ 11,757,149 | \$ 2,145 | \$ 13,786,451 | \$ 2,516 |
| Central | 10,187 | \$ 23,301,128 | \$ 2,287 | \$ 23,291,158 | \$ 2,286 | \$ 23,160,539 | \$ 2,274 |
| North | 8,705 | \$ 15,367,442 | \$ 1,765 | \$ 15,370,485 | \$ 1,766 | \$ 15,415,196 | \$ 1,771 |
| South | 15,104 | \$ 36,470,951 | \$ 2,415 | \$ 36,213,844 | \$ 2,398 | \$ 32,940,570 | \$ 2,181 |
| East | 13,079 | \$ 21,334,138 | \$ 1,631 | \$ 21,437,130 | \$ 1,639 | \$ 22,767,010 | \$ 1,741 |
| TOTAL | 52,555 | \$ 108,069,766 | \$ 2,056 | \$ 108,069,766 | \$ 2,056 | \$ 108,069,766 | \$ 2,056 |

* Jurisdiction totals are identical, as the LVT applications are revenue neutral.

Survey Grid Sections

Table 6.6 provides a more detailed breakdown of tax shift on all parcels including developed and undeveloped, by section. Large differences between conventional and 2-rate taxes appear in the geographic subdivisions containing few parcels. In these sections, where the number of observations is small, the results are less reliable. Results are easier to comprehend when graphically illustrated. Figure 6.3 shows the distribution of relative tax shift from the conventional tax to a 95% land value tax.

In general, the sections clustered around the centers of the two jurisdictions of Salem and Keizer are shown to experience tax increases. A cluster of South end sections also is subject to varying degrees of upward tax shift. Comparisons with Figure 4.2 reveal that most of the affected sections contain a high percentage of undeveloped parcels.

Large tax increases occur in a few sections, but not necessarily the same sections which experienced heavy shifts in the previous analysis simulating the change from taxable assessments to real market assessments under the conventional application (see Figure 5.2).

Table 6.6

SALEM METRO AREA - TAX BURDEN SHIFT, BY SECTION**COMBINED JURISDICTIONS**

| Section | # Parcels | Conventional Tax | 55% LVT | | | 95% LVT | |
|--------------------------|-----------|------------------|------------|----------|------------|----------|--|
| | | | 2-Rate Tax | % Change | 2-Rate Tax | % Change | |
| CBD - T7S-R3W | | | | | | | |
| 22 | 528 | 2,458,498 | 2,493,085 | 1.4% | 2,928,916 | 19.1% | |
| 23 | 2,122 | 2,826,900 | 2,885,798 | 2.1% | 3,627,975 | 28.3% | |
| 26 | 2,159 | 3,350,555 | 3,390,723 | 1.2% | 3,896,879 | 16.3% | |
| 27 | 671 | 2,960,154 | 2,987,544 | 0.9% | 3,332,682 | 12.6% | |
| Central - T7S-R3W | | | | | | | |
| 10 | 444 | 766,054 | 772,704 | 0.9% | 851,731 | 11.2% | |
| 11 | 964 | 4,705,259 | 4,551,448 | -3.3% | 2,615,170 | -44.4% | |
| 12 | 758 | 1,990,761 | 1,959,196 | -1.6% | 1,562,907 | -21.5% | |
| 13 | 1,182 | 1,630,752 | 1,632,874 | 0.1% | 1,659,621 | 1.8% | |
| 14 | 1,282 | 2,130,821 | 2,163,146 | 1.5% | 2,570,475 | 20.6% | |
| 15 | 408 | 737,608 | 749,968 | 1.7% | 905,717 | 22.8% | |
| 24 | 1,500 | 2,824,778 | 2,842,900 | 0.6% | 3,071,252 | 8.7% | |
| 25 | 265 | 431,008 | 431,826 | 0.2% | 442,126 | 2.6% | |
| 28 | 2 | 3 | 3 | 14.7% | 8 | 199.3% | |
| 30 | 16 | 5,923 | 6,169 | 4.1% | 8,721 | 47.2% | |
| 31 | 31 | 18,843 | 20,212 | 7.3% | 34,440 | 82.8% | |
| 32 | 3 | 5,965 | 6,545 | 9.7% | 13,842 | 132.0% | |
| 33 | 502 | 1,376,651 | 1,378,247 | 0.1% | 1,398,353 | 1.6% | |
| 34 | 2,051 | 3,758,518 | 3,836,589 | 2.1% | 4,820,367 | 28.3% | |
| 35 | 740 | 2,085,093 | 2,099,280 | 0.7% | 2,278,043 | 9.3% | |
| 36 | 39 | 833,091 | 840,052 | 0.8% | 927,765 | 11.4% | |
| North - T6S-R3W | | | | | | | |
| 23 | 382 | 454,055 | 470,068 | 3.5% | 654,978 | 44.3% | |
| 25 | 298 | 493,251 | 489,905 | -0.7% | 451,310 | -8.5% | |
| 26 | 1,663 | 3,147,533 | 3,124,498 | -0.7% | 2,860,648 | -9.1% | |
| 27 | 78 | 101,182 | 103,860 | 2.6% | 134,469 | 32.9% | |
| 33 | 29 | 40,253 | 40,005 | -0.6% | 36,885 | -8.4% | |
| 34 | 1,086 | 1,965,871 | 1,956,436 | -0.5% | 1,847,598 | -6.0% | |
| 35 | 1,137 | 2,495,601 | 2,488,570 | -0.3% | 2,407,462 | -3.5% | |
| 36 | 648 | 1,006,848 | 1,007,661 | 0.1% | 1,017,147 | 1.0% | |
| 73__ | | | | | | | |
| 1 | 531 | 1,317,677 | 1,320,306 | 0.2% | 1,358,586 | 3.1% | |
| 2 | 1,476 | 2,373,421 | 2,380,627 | 0.3% | 2,463,755 | 3.8% | |
| 3 | 1,346 | 1,891,037 | 1,907,872 | 0.9% | 2,102,083 | 11.2% | |
| 4 | 31 | 80,712 | 80,677 | 0.0% | 80,275 | -0.5% | |
| South - T8S-R3,4W | | | | | | | |
| 1 | 13 | 43,123 | 47,494 | 10.1% | 102,568 | 137.8% | |
| 2 | 807 | 6,721,590 | 6,430,089 | -4.3% | 2,756,878 | -59.0% | |
| 3 | 1,450 | 3,309,442 | 3,316,909 | 0.2% | 3,411,006 | 3.1% | |
| 4 | 1,454 | 2,840,360 | 2,855,477 | 0.5% | 3,044,896 | 7.2% | |
| 5 | 450 | 1,086,928 | 1,093,013 | 0.6% | 1,168,870 | 7.5% | |
| 6 | 231 | 668,998 | 669,483 | 0.1% | 678,034 | 1.4% | |
| 7 | 10 | 26,033 | 25,750 | -1.1% | 22,813 | -12.4% | |
| 8 | 518 | 930,658 | 930,616 | 0.0% | 923,081 | -0.8% | |
| 9 | 1,779 | 3,322,565 | 3,320,235 | -0.1% | 3,290,875 | -1.0% | |
| 10 | 1,322 | 2,879,663 | 2,874,706 | -0.2% | 2,812,241 | -2.3% | |
| 11 | 683 | 1,644,637 | 1,626,869 | -1.1% | 1,402,975 | -14.7% | |
| 12 | 84 | 435,140 | 428,586 | -1.5% | 344,342 | -20.9% | |
| 13 | 591 | 1,141,636 | 1,139,405 | -0.2% | 1,116,831 | -2.2% | |
| 14 | 772 | 1,854,839 | 1,861,524 | 0.4% | 1,943,811 | 4.8% | |
| 15 | 1,536 | 2,757,679 | 2,767,645 | 0.4% | 2,894,231 | 5.0% | |
| 16 | 1,301 | 2,320,344 | 2,318,654 | -0.1% | 2,287,880 | -1.4% | |
| 17 | 526 | 1,128,438 | 1,123,158 | -0.5% | 1,049,044 | -7.0% | |
| 18 | 22 | 55,844 | 55,689 | -0.3% | 54,078 | -3.2% | |
| 20 | 12 | 11,042 | 11,192 | 1.4% | 12,755 | 15.5% | |
| 21 | 110 | 115,430 | 117,978 | 2.2% | 145,854 | 26.4% | |
| 22 | 489 | 1,065,540 | 1,090,562 | 2.3% | 1,399,804 | 31.4% | |
| 23 | 800 | 1,756,500 | 1,752,455 | -0.2% | 1,699,729 | -3.2% | |
| 24 | 59 | 238,614 | 236,046 | -1.1% | 203,228 | -14.8% | |
| 26 | 21 | 36,425 | 36,300 | -0.3% | 34,995 | -3.9% | |
| 27 | 20 | 33,507 | 33,668 | 0.5% | 35,332 | 5.4% | |
| 28 | 24 | 16,930 | 17,287 | 2.1% | 20,996 | 24.0% | |
| 84__ | | | | | | | |
| 1 | 17 | 26,824 | 30,754 | 14.7% | 80,277 | 199.3% | |
| 12 | 3 | 2,219 | 2,301 | 3.7% | 3,148 | 41.9% | |

| Section | # Parcels | Conventional Tax | 2-Rate Tax | % Change | 2-Rate Tax | % Change |
|-----------------------|---------------|-----------------------|-----------------------|-------------|-----------------------|-------------|
| East - T7S-R2W | | | | | | |
| 4 | - | - | - | - | - | - |
| 5 | 1,060 | 1,171,154 | 1,185,331 | 1.2% | 1,369,134 | 16.9% |
| 6 | 1,336 | 2,139,199 | 2,130,605 | -0.4% | 2,039,872 | -4.6% |
| 7 | 811 | 1,507,931 | 1,479,736 | -1.9% | 1,185,561 | -21.4% |
| 8 | 1,056 | 1,183,926 | 1,183,097 | -0.1% | 1,174,505 | -0.8% |
| 17 | 699 | 824,707 | 838,634 | 1.7% | 1,011,552 | 22.7% |
| 18 | 1,260 | 2,647,883 | 2,669,497 | 0.8% | 2,933,492 | 10.8% |
| 19 | 1,254 | 3,742,086 | 3,773,855 | 0.8% | 4,174,753 | 11.6% |
| 20 | 759 | 924,093 | 944,290 | 2.2% | 1,194,566 | 29.3% |
| 29 | 288 | 431,683 | 434,503 | 0.7% | 466,724 | 8.1% |
| 30 | 1,372 | 2,236,302 | 2,234,764 | -0.1% | 2,210,306 | -1.2% |
| 31 | 1,235 | 1,795,108 | 1,812,398 | 1.0% | 2,016,948 | 12.4% |
| 32 | 1,217 | 1,194,776 | 1,201,609 | 0.6% | 1,279,898 | 7.1% |
| 31 | 57 | 207,991 | 207,733 | -0.1% | 201,161 | -3.3% |
| 32 | 92 | 105,866 | 110,311 | 4.2% | 156,501 | 47.8% |
| 33 | - | - | - | - | - | - |
| 4 | 1 | 8,757 | 8,307 | -5.1% | 2,632 | -69.9% |
| 5 | 126 | 279,384 | 276,488 | -1.0% | 239,832 | -14.2% |
| 6 | 254 | 670,425 | 681,455 | 1.6% | 820,432 | 22.4% |
| 7 | 49 | 100,691 | 103,981 | 3.3% | 145,344 | 44.3% |
| 8 | - | - | - | - | - | - |
| 9 | 2 | 1,014 | 1,163 | 14.7% | 3,036 | 199.3% |
| 18 | 98 | 105,175 | 104,767 | -0.4% | 100,532 | -4.4% |
| 19 | 53 | 55,988 | 54,605 | -2.5% | 40,230 | -28.1% |
| TOTAL | 52,555 | \$ 108,069,766 | \$ 108,069,766 | 0.0% | \$ 108,069,766 | 0.0% |

Figure 6.3
TAX BURDEN SHIFT, BY SECTION
95% LVT

| | | | | | | | | |
|--------|--------|-------|-------|--------|--------|--------|--------|--------|
| | | | | | | 44.2% | | |
| | | | | 33.0% | | -9.1% | -8.5% | |
| | | -8.1% | -6.0% | -3.5% | 1.0% | -4.0% | 47.8% | |
| | | -0.5% | 11.2% | 3.8% | 3.8% | -4.5% | 18.2% | |
| | | | 11.4% | -46.0% | -21.5% | -21.3% | -0.8% | |
| | | | 22.8% | 20.6% | 1.8% | 10.9% | 23.1% | |
| | | | 19.1% | 28.3% | 8.7% | 11.6% | 29.4% | |
| | 47.2% | | 12.6% | 16.3% | 2.6% | -1.4% | 8.2% | |
| | 82.8% | | 1.6% | 28.3% | 9.3% | 11.4% | 12.8% | 7.4% |
| 199.3% | 1.6% | 7.5% | 7.2% | 3.1% | -59.0% | 137.8% | 22.4% | -14.3% |
| | -12.4% | -1.1% | -1.0% | -2.3% | -14.7% | -21.1% | 44.8% | |
| | -3.2% | -7.4% | -1.6% | 5.0% | 4.8% | -2.0% | -4.4% | |
| | | 15.5% | 26.8% | 31.5% | -3.3% | -15.2% | -28.1% | |
| | | | 24.0% | 5.4% | -3.9% | | | |

Includes sections with 10 or more observations. Positive tax shift is shaded.

Conclusion

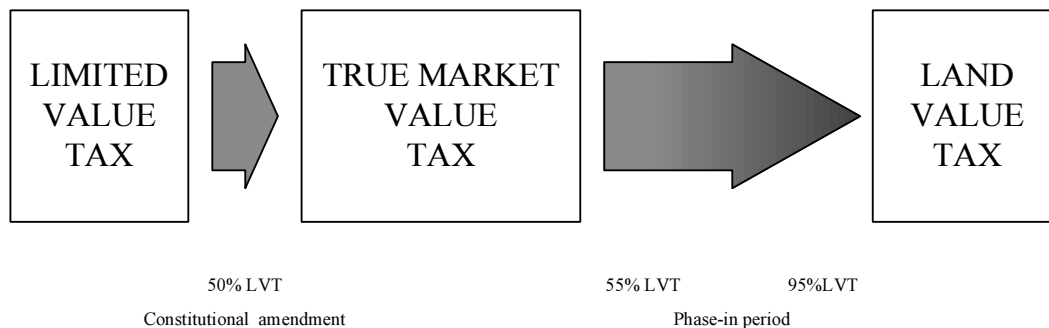
As noted previously, these tax shift illustrations represent the change from a conventional tax that applies RMV assessments. Hence, they are not indicative of the actual tax shifts that would occur using the present circumstance, that is, conventional taxation under current property tax limitations. In order to simulate the entire shift, from conventional taxation using taxable values to the 2-rate LVT using true market values, the results obtained in this chapter should be combined with the results obtained in the previous chapter on conventional taxation.

Total Tax Shift

Reforming Oregon's property tax system would entail a two-step process, as illustrated in Figure 6.4. The first step, simulated in Chapter 5, corrects the assessed value distortions caused by the property tax limitations currently in effect. The second step, simulated in the first part of this chapter, introduces the graduated land-based tax system that targets land rent as the legitimate source of local government revenue. Thus, true community-generated market value becomes the basis for property tax reform. Gone are the unnatural conditions placed on growth in site values that abet the private appropriation of speculative gain.

Figure 6.4

PROGRESSIVE PROPERTY TAX REFORM



The direction of tax shift accompanying each step in the reform process is not necessarily constant. A change in assessment from taxable value (under current limitations) to true market value may result in an upward shift in taxes on certain properties, whilst a change from conventional (equal rate) tax rates to differential rates may result in a downward shift on the same properties. The two causal factors are entirely independent, in theory. The first is determined by historic patterns of change in assessed values and revenue growth. The second is determined by the ratio between land and improvement assessments.

The total tax shift involves a process of combining the results from the two steps, illustrated as follows:

$$\text{Step 1: } [(\text{Conventional tax : RMV}) - (\text{Conventional Tax : TAXABLE})]$$

+

$$\text{Step 2: } [(2\text{-Rate tax : RMV}) - (\text{Conventional tax : RMV})]$$

Alternatively, the results of a full tax shift could be obtained in one step by finding the difference between:

$$(2\text{-Rate tax : RMV}) \text{ and } (\text{Conventional tax : TAXABLE}).$$

The two-step process is illustrated in Table 6.7, where the *difference from taxable value* column represents step 1, and the *difference from conventional tax* column represents step 2. The *combined difference* column represents the full or total tax shift. In each step, the derived tax rates necessary to achieve revenue neutrality are utilized in simulated tax applications. In the case of tax shift by land use class, the first-step results are extracted from Table 5.6, and the second step results are extracted from the combined results of Table 6.2. In this analysis, the 95% LVT is used as the basis for total tax shift.

Total Tax Shift by Land Use Class

Table 6.7 and the accompanying graph show how the course in tax shift that results by combining the two steps may or may not be unidirectional. In the instance of single family parcels, the change from taxable value to RMV assessments resulted in a downward shift in conventional tax burden. Then, in a transition from conventional taxation to land value taxation resulted in a gradual upward shift in tax burden. By combining the results of these two steps, the positive and negative shifts cancel one another at about the 80% LVT level, for a final result of \$2.9 million in increased tax at the 95% LVT level. Thus, at the maximum differential tax rate, taxes on single family parcels increase in the aggregate by a modest 4.5 percent. Depending upon the land-to-total value assessment ratio of each property, some will experience an increase while others will experience a decrease. In reality, this general upward shift may be a function of low land value assessments on non-residential properties, or low density residential development, or both.

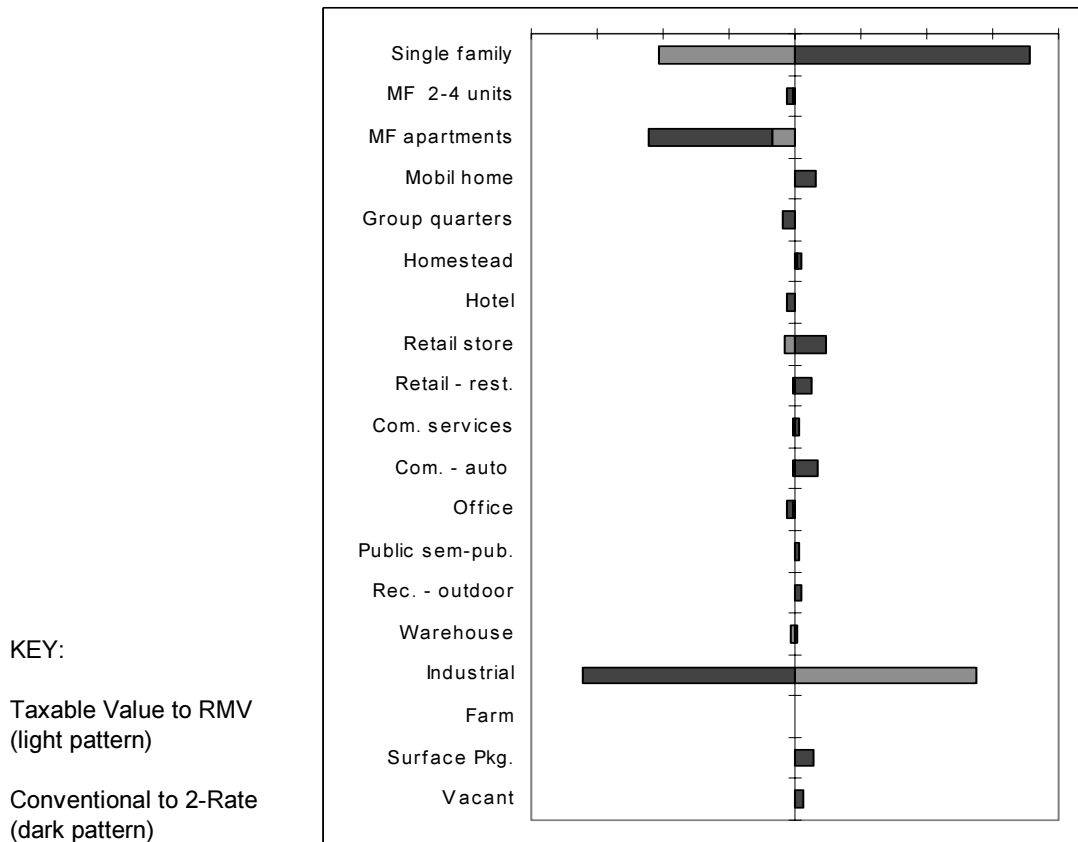
Multifamily properties, because they are over-burdened under current Oregon property tax limitations, and because their L-T-V ratios are smaller than the overall average, receive a tax reduction under the 2-rate system ranging from 8.5% for 2-4 family buildings to 52.2% for larger apartment buildings. Homesteads, because they currently receive a tax break under the tax limitations, and because they are land consuming (resulting in high L-T-V ratios), are subject to an combined 19 percent increase in taxes.

Within the commercial category, some of the highest upward tax shifts occur in retail and auto related commercial uses. In these cases, the high L-T-V ratios offset the negative tax shifts that accompany the first-step conversion to RMV assessments. What appear to be building-intensive uses, such as office buildings, receive a tax reduction under the 2-rate system.

Table 6.7
TOTAL TAX SHIFT, BY LAND USE CLASS:
COMPARING TAXABLE CONVENTIONAL TO RMV TWO-RATE
ALL JURISDICTIONS

| Land Use Class | No. Parcels | Difference from Taxable Vaue | Difference from Conventional Tax | Combined Difference | Percent Change |
|-------------------------------|-------------|------------------------------|----------------------------------|---------------------|----------------|
| Single family detached | 39,832 | \$ (4,135,333) | \$ 7,094,023 | \$ 2,958,690 | 4.5% |
| Multi-family 2-4 units | 1,668 | \$ (34,124) | \$ (221,111) | \$ (255,235) | -8.5% |
| Multi-family apartments | 983 | \$ (680,461) | \$ (3,741,298) | \$ (4,421,759) | -52.2% |
| Mobil home park units | 940 | \$ (16,883) | \$ 604,341 | \$ 587,458 | 31.5% |
| Group quarters | 37 | \$ (12,284) | \$ (363,267) | \$ (375,551) | -57.8% |
| Homestead | 411 | \$ 48,805 | \$ 115,680 | \$ 164,485 | 18.9% |
| Hotel | 29 | \$ 4,201 | \$ (254,871) | \$ (250,670) | -31.8% |
| Retail store | 580 | \$ (282,497) | \$ 913,406 | \$ 630,910 | 10.3% |
| Retail - restaurant, lounge | 228 | \$ (40,570) | \$ 489,699 | \$ 449,129 | 36.9% |
| Commercial services | 69 | \$ (78,634) | \$ 137,591 | \$ 58,957 | 7.3% |
| Commercial - auto related | 236 | \$ (66,241) | \$ 701,738 | \$ 635,497 | 49.8% |
| Office | 552 | \$ (57,729) | \$ (180,674) | \$ (238,404) | -6.1% |
| Public / semi-public building | 166 | \$ (18,261) | \$ 105,580 | \$ 87,319 | 7.5% |
| Recreation facility - outdoor | 42 | \$ (3,098) | \$ 161,246 | \$ 158,147 | 31.3% |
| Warehouse | 379 | \$ (127,991) | \$ 40,943 | \$ (87,048) | -3.7% |
| Industrial | 457 | \$ 5,496,095 | \$ (6,464,778) | \$ (968,684) | -19.0% |
| Farm | 360 | \$ 2,002 | \$ 14,695 | \$ 16,697 | 6.1% |
| Surface Parking | 270 | \$ (13,406) | \$ 592,549 | \$ 579,143 | 160.7% |
| Vacant | 346 | \$ 16,410 | \$ 254,508 | \$ 270,918 | 183.0% |
| | 47,585 | 0 | \$ - | \$ 0 | 0.0% |

COMBINED DIFFERENCES IN TAX SHIFT



Industrial properties are currently undervalued when measured against real market value assessments, but their generally low L-T-V ratios offset this first-step tax burden increase. Their maximum differential tax savings amounts to 19 percent, in the aggregate. However, because of the wide disparity in 2-rate tax shift between jurisdictions (see Table 6.2), some industrial sites within Salem City can expect a large tax break.

Due to the high ratio of land-to-improvement value assigned to vacant lots and surface parking lots, the total tax shift in proportional terms is substantial. In absolute dollar values, however, the additional tax burden is modest—less than the shift experienced by all retail uses.

Total Tax Shift by Location

In the case of tax shift by sub area, the first-step results are extracted from Table 5.2, and the second step results are extracted from the combined results of Table 6.4. In this analysis, the 95% LVT is used as the basis for total tax shift. Salem central business district properties under current tax limitations are overvalued when measured against RMV assessments, but high land values tend to drive up the tax shift effects of the 2-rate tax—to a net change of 16% on all CBD parcels. The undeveloped parcels in this high value sub area are subject to a total tax burden increase of 222 percent (see Table 6.8).

The opposite effect is found in South sub area, where a step 1 transformation to RMV assessments would increase the tax liability; but the step 2 conversion to a land-based tax would shift tax burden downward. In all sub areas, the combined two steps in the property tax reform process produce moderating effects—in the aggregate. That is, step 1 effects tend to partially offset step 2 effects. As for undeveloped properties, however, the increased tax burden effects of the two steps are for the most part additive. With the exception of the CBD, total tax burden shift accompanying tax reform does not vary appreciably by sub area.

For a detailed look at total tax shift by location, Table 6.9 provides a view of the combined effects of changing to RMV assessments and converting to LVT. Percentage tax shifts are graphically illustrated on the Figure 6.5 schematic map of square mile grid sections. Results are not dissimilar to those found in Figure 6.3, illustrating the second step change to a 95% LVT. Most upward total tax shift is found to occur in centrally located sections of both Salem and Keizer. Some changes to the South sub area results appear with the combined step 1 and step 2 effects. Fewer sections in this sub area experience a positive tax shift, although where it does occur the shifts in most cases are augmented by the change to real market valuation.

Table 6.8
TOTAL TAX SHIFT, BY SUB AREA:
COMPARING TAXABLE CONVENTIONAL TO RMV TWO-RATE
DEVELOPED PARCELS

| Sub Area | No. Parcels | Difference from Taxable Vaue | Difference from Conventional Tax | Combined Difference | Percent Change |
|--------------|---------------|------------------------------|----------------------------------|-----------------------|----------------|
| CBD | 5,145 | \$ (336,300) | \$ 1,533,736 | \$ 1,197,436 | 10.3% |
| Central | 9,281 | \$ 232,438 | \$ (1,265,864) | \$ (1,033,426) | -4.6% |
| North | 7,610 | \$ (94,083) | \$ (996,141) | \$ (1,090,223) | -7.3% |
| South | 13,312 | \$ 1,182,163 | \$ (5,457,095) | \$ (4,274,931) | -12.5% |
| East | 11,757 | \$ (1,071,217) | \$ 229,707 | \$ (841,510) | -3.9% |
| Total | 47,105 | \$ (86,998) | \$ (5,955,656) | \$ (6,042,654) | -5.8% |

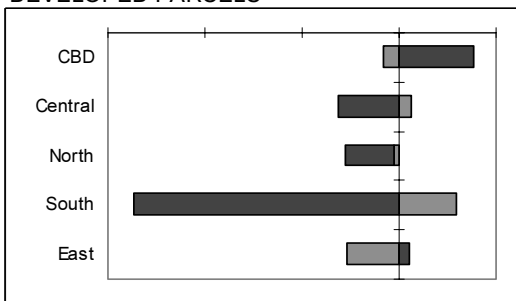
UNDEVELOPED PARCELS

| Sub Area | No. Parcels | Difference from Taxable Vaue | Difference from Conventional Tax | Combined Difference | Percent Change |
|--------------|--------------|------------------------------|----------------------------------|---------------------|----------------|
| CBD | 335 | \$ 22,995 | \$ 656,609 | \$ 679,604 | 221.7% |
| Central | 906 | \$ (10,240) | \$ 1,125,274 | \$ 1,115,034 | 191.1% |
| North | 1,095 | \$ 28,347 | \$ 1,043,894 | \$ 1,072,241 | 192.5% |
| South | 1,792 | \$ 45,973 | \$ 1,926,714 | \$ 1,972,687 | 205.9% |
| East | 1,322 | \$ (78) | \$ 1,203,165 | \$ 1,203,088 | 182.5% |
| Total | 5,450 | \$ 86,997 | \$ 5,955,656 | \$ 6,042,654 | 197.2% |

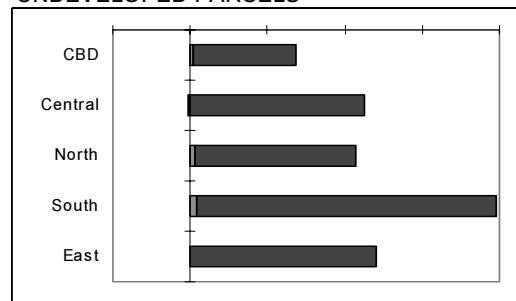
COMBINED PARCELS

| Sub Area | No. Parcels | Difference from Taxable Vaue | Difference from Conventional Tax | Combined Difference | Percent Change |
|----------------|---------------|------------------------------|----------------------------------|-----------------------|----------------|
| CBD | 5,480 | \$ (313,305) | \$ 2,190,345 | \$ 1,877,040 | 15.8% |
| Central | 10,187 | \$ 222,198 | \$ (140,590) | \$ 81,608 | 0.4% |
| North | 8,705 | \$ (65,736) | \$ 47,754 | \$ (17,982) | -0.1% |
| South | 15,104 | \$ 1,228,137 | \$ (3,530,381) | \$ (2,302,244) | -6.5% |
| East | 13,079 | \$ (1,071,294) | \$ 1,432,872 | \$ 361,578 | 1.6% |
| Total | 52,555 | \$ (0) | \$ (0) | \$ (0) | 0.0% |

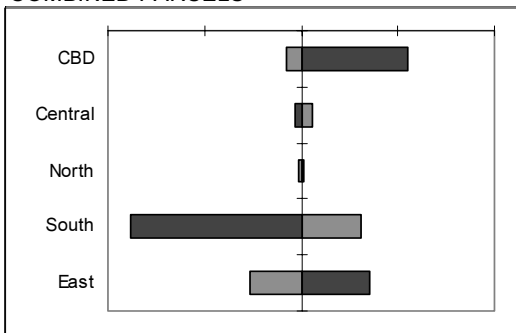
DEVELOPED PARCELS



UNDEVELOPED PARCELS



COMBINED PARCELS



KEY:

Taxable Value to RMV (light pattern)

Conventional to 2-Rate (dark pattern)

Table 6.9
TOTAL TAX SHIFT, BY SECTION:
COMPARING TAXABLE CONVENTIONAL TO RMV TWO-RATE

COMBINED JURISDICTIONS

| Section | # of Properties | Difference from Taxable Value | Difference from Conventional Tax | Combined Difference |
|--------------------------|-----------------|-------------------------------|----------------------------------|---------------------|
| CBD - T7S-R3W | | | | |
| 22 | 528 | (107,784) | \$ 470,418 | \$ 362,634 |
| 23 | 2,122 | (87,627) | \$ 801,075 | \$ 713,448 |
| 26 | 2,159 | (37,621) | \$ 546,324 | \$ 508,703 |
| 27 | 671 | (80,273) | \$ 372,527 | \$ 292,255 |
| Central - T7S-R3W | | | | |
| 10 | 444 | (19,639) | \$ 85,678 | \$ 66,039 |
| 11 | 964 | 1,367,650 | \$ (2,090,089) | \$ (722,439) |
| 12 | 758 | (192,700) | \$ (427,854) | \$ (620,554) |
| 13 | 1,182 | (164,387) | \$ 28,870 | \$ (135,517) |
| 14 | 1,282 | (85,800) | \$ 439,654 | \$ 353,854 |
| 15 | 408 | 55,956 | \$ 168,109 | \$ 224,065 |
| 24 | 1,500 | (177,874) | \$ 246,473 | \$ 68,599 |
| 25 | 265 | (22,027) | \$ 11,118 | \$ (10,909) |
| 28 | 2 | (1) | \$ 6 | \$ 5 |
| 30 | 16 | (345) | \$ 2,798 | \$ 2,453 |
| 31 | 31 | 375 | \$ 15,597 | \$ 15,972 |
| 32 | 3 | (81) | \$ 7,877 | \$ 7,796 |
| 33 | 502 | (185,508) | \$ 21,701 | \$ (163,807) |
| 34 | 2,051 | (247,571) | \$ 1,061,849 | \$ 814,278 |
| 35 | 740 | (88,634) | \$ 192,950 | \$ 104,316 |
| 36 | 39 | (17,215) | \$ 94,674 | \$ 77,459 |
| North - T6S-R3W | | | | |
| 23 | 382 | 38,129 | \$ 200,923 | \$ 239,052 |
| 25 | 298 | (5,938) | \$ (41,940) | \$ (47,878) |
| 26 | 1,663 | (10,397) | \$ (286,886) | \$ (297,282) |
| 27 | 78 | (4,020) | \$ 33,286 | \$ 29,267 |
| 33 | 29 | (894) | \$ (3,367) | \$ (4,261) |
| 34 | 1,086 | (82,211) | \$ (118,273) | \$ (200,484) |
| 35 | 1,137 | (17,404) | \$ (88,139) | \$ (105,542) |
| 36 | 648 | (11,208) | \$ 10,299 | \$ (909) |
| 73 | 531 | (39,970) | \$ 40,909 | \$ 938 |
| 2 | 1,476 | 68,686 | \$ 90,334 | \$ 159,019 |
| 3 | 1,346 | (5,147) | \$ 211,045 | \$ 205,898 |
| 4 | 31 | 4,637 | \$ (437) | \$ 4,200 |
| South - T8S-R3,4W | | | | |
| 1 | 13 | (3,056) | \$ 59,445 | \$ 56,389 |
| 2 | 807 | 4,002,742 | \$ (3,964,712) | \$ 38,030 |
| 3 | 1,450 | (233,950) | \$ 101,564 | \$ (132,386) |
| 4 | 1,454 | (342,881) | \$ 204,536 | \$ (138,345) |
| 5 | 450 | (115,339) | \$ 81,942 | \$ (33,397) |
| 6 | 231 | (65,504) | \$ 9,036 | \$ (56,468) |
| 7 | 10 | 2,104 | \$ (3,220) | \$ (1,116) |
| 8 | 518 | (108,753) | \$ (7,577) | \$ (116,330) |
| 9 | 1,779 | (389,357) | \$ (31,691) | \$ (421,047) |
| 10 | 1,322 | (356,022) | \$ (67,423) | \$ (423,445) |
| 11 | 683 | (272,573) | \$ (241,662) | \$ (514,235) |
| 12 | 84 | 271,048 | \$ (90,798) | \$ 180,250 |
| 13 | 591 | (105,321) | \$ (24,805) | \$ (130,126) |
| 14 | 772 | (164,224) | \$ 88,972 | \$ (75,252) |
| 15 | 1,536 | (251,982) | \$ 136,552 | \$ (115,430) |
| 16 | 1,301 | (209,008) | \$ (32,464) | \$ (241,472) |
| 17 | 526 | (102,737) | \$ (79,394) | \$ (182,132) |
| 18 | 22 | 224 | \$ (1,766) | \$ (1,543) |
| 20 | 12 | 599 | \$ 1,713 | \$ 2,312 |
| 21 | 110 | 13,027 | \$ 30,423 | \$ 43,451 |
| 22 | 489 | (110,805) | \$ 334,264 | \$ 223,459 |
| 23 | 800 | (230,102) | \$ (56,771) | \$ (286,873) |
| 24 | 59 | (10,016) | \$ (35,386) | \$ (45,402) |
| 26 | 21 | 2,872 | \$ (1,430) | \$ 1,442 |
| 27 | 20 | 4,058 | \$ 1,825 | \$ 5,883 |
| 28 | 24 | 1,480 | \$ 4,066 | \$ 5,546 |
| — | 17 | 1,224 | \$ 53,453 | \$ 54,677 |
| 12 | 3 | 388 | \$ 929 | \$ 1,317 |
| East - T7S-R2W | | | | |
| 4 | - | - | \$ - | \$ - |
| 5 | 1,060 | (41,921) | \$ 197,979 | \$ 156,058 |
| 6 | 1,336 | (151,103) | \$ (99,327) | \$ (250,430) |
| 7 | 811 | 12,781 | \$ (322,370) | \$ (309,590) |
| 8 | 1,056 | (40,749) | \$ (9,421) | \$ (50,170) |
| 17 | 699 | (72,171) | \$ 186,845 | \$ 114,674 |
| 18 | 1,260 | (167,935) | \$ 285,608 | \$ 117,673 |
| 19 | 1,254 | (383,533) | \$ 432,668 | \$ 49,134 |
| 20 | 759 | (74,696) | \$ 270,473 | \$ 195,777 |
| 29 | 288 | (3,388) | \$ 35,041 | \$ 31,653 |
| 30 | 1,372 | (12,464) | \$ (25,996) | \$ (38,460) |
| 31 | 1,235 | (46,829) | \$ 221,840 | \$ 175,011 |
| 32 | 1,217 | (731) | \$ 85,122 | \$ 84,392 |
| 31 | 57 | (7,225) | \$ (6,830) | \$ (14,054) |
| 32 | 92 | 13,746 | \$ 50,635 | \$ 64,382 |
| 33 | - | - | \$ - | \$ - |
| 4 | 1 | (681) | \$ (6,125) | \$ (6,806) |
| 5 | 126 | (25,271) | \$ (39,552) | \$ (64,823) |
| 6 | 254 | (65,607) | \$ 150,006 | \$ 84,400 |
| 7 | 49 | (6,746) | \$ 44,654 | \$ 37,908 |
| 8 | - | - | \$ - | \$ - |
| 9 | 2 | (1) | \$ 2,021 | \$ 2,020 |
| 18 | 98 | 1,563 | \$ (4,643) | \$ (3,080) |
| 19 | 53 | 1,667 | \$ (15,758) | \$ (14,091) |
| TOTAL | 52,555 | (0) | \$ (0) | \$ (0) |

COMBINED DIFFERENCES IN TAX SHIFT

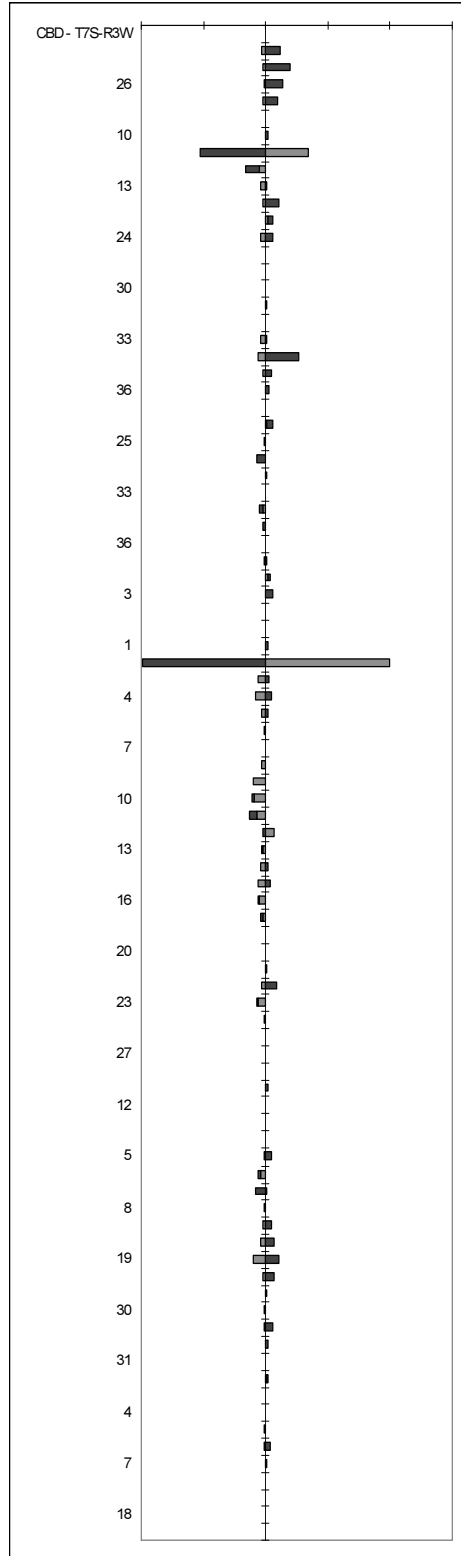


Figure 6.5

TOTAL TAX BURDEN SHIFT, BY SECTION

Conventional Tax on Taxable Values - to - Land Value Tax on Real Market Values

| | | | | | | | | |
|--------|-------|--------|--------|--------|--------|--------|--------|--------|
| | | | | | | 57.5% | | |
| | | | | 27.8% | | -9.4% | -9.6% | |
| | | -10.4% | -9.8% | -4.2% | -0.1% | -6.5% | 69.9% | |
| | | 5.5% | 10.9% | 6.9% | 0.1% | -10.9% | 12.9% | |
| | | | 8.4% | -21.6% | -28.4% | -20.7% | -4.1% | |
| | | | 32.9% | 16.0% | -7.5% | 4.2% | 12.8% | |
| | | | 14.1% | 24.5% | 2.3% | 1.2% | 19.6% | |
| | 39.1% | | 9.6% | 15.0% | -2.4% | -1.7% | 7.3% | |
| | 86.5% | | -10.5% | 20.3% | 4.8% | 9.1% | 9.5% | 7.1% |
| 213.6% | -7.7% | -2.8% | -4.3% | -3.7% | 1.4% | 122.1% | 11.5% | -21.3% |
| | -4.7% | -11.2% | -11.3% | -13.1% | -26.8% | 109.8% | 35.3% | |
| | -2.8% | -14.8% | -9.5% | -3.8% | -3.7% | -10.4% | -3.0% | |
| | | 22.1% | 42.4% | 19.0% | -14.4% | -18.3% | -25.9% | |
| | | | 35.9% | 20.0% | 4.3% | | | |

Includes sections with 10 or more observations

Conclusion

Combining the two steps towards progressive property tax reform in Oregon results in a tax system that eliminates distortions caused by tax limitations currently in effect. It also underscores the use of land value in taxation, which is less punitive to owners who undertake substantial capital investments—who put their land into productive use.

Tax simulations demonstrate the significant upward tax shifts associated with vacant and underutilized sites, especially those in central locations. They also illustrate the tax advantage of building more intensively. It appears that the simulated tax reforms, based on true community-generated market value, are more equitable than the present system based on distorted values and the appropriation of private investment capital.

But in dollar figures, tax shift accompanying reforms is modest. The conversion to a differential land-based tax would probably be introduced on a graduated basis, increasing the land tax rate over time. Simulations demonstrate that the maximum 95% level land tax has more of an impact on total tax shift than does the change from taxable value to true market value. However, at the lower LVT levels, the reverse would be the case. In other words, in the early stages of a phased-in 2-rate tax system, the greater effects would be felt from the change to real market assessments.

Some questions arise from the analyses. Does the land-based tax offer sufficient financial inducement for owners of centrally located underutilized sites to either redevelop them or release them for others to develop? Will more compact land development, notably the trend away from large-lot development, occur given the tendency to assess lots of all sizes at similar total land values?

In the final analysis, tax shift outcomes are determined not only by real market values vs. limited taxable values, or by a conventional equal rate tax system vs. a land value tax, but also by assessment practices. The growth trend in property values is driven by population and employment expansion and the accompanying demand for land and desirable locations—primarily reflected in land values. The common practice of adjusting building assessments on existing developed sites in proportion to land value increases can be called into question. Buildings lose value relative to land as they approach obsolescence. More realistic assessments would seem to give greater emphasis to rising land values.

The question should also be raised as to whether industrial and some commercial sites are undervalued when compared to residential sites. Results from similar LTV studies in Eastern cities have consistently shown reductions in 2-rate tax burdens experienced by single family properties. Finally, the assessment practice of devaluing “excess land” on large residential lots is counter-productive, as it encourages excess land consumption. The incentive effects of a land value tax are diminished in all instances where land assessments are undervalued.

A number of these questions will be taken up in Chapter 7.

CHAPTER 7

EVALUATION

A Profile of Tax Shift

The reason for introducing land value property taxation as a reform measure is to accomplish a social purpose—a public benefit which the current system fails to achieve. LVT has been promoted and implemented in several countries and in American states for the principal purpose of promoting more efficient use of land. In the context of the Washington State Growth Management Act, there are numerous public purposes that might be achieved by reducing the tax burden on capital investments (buildings) and increasing the tax rate on the land portion of real property. These include:

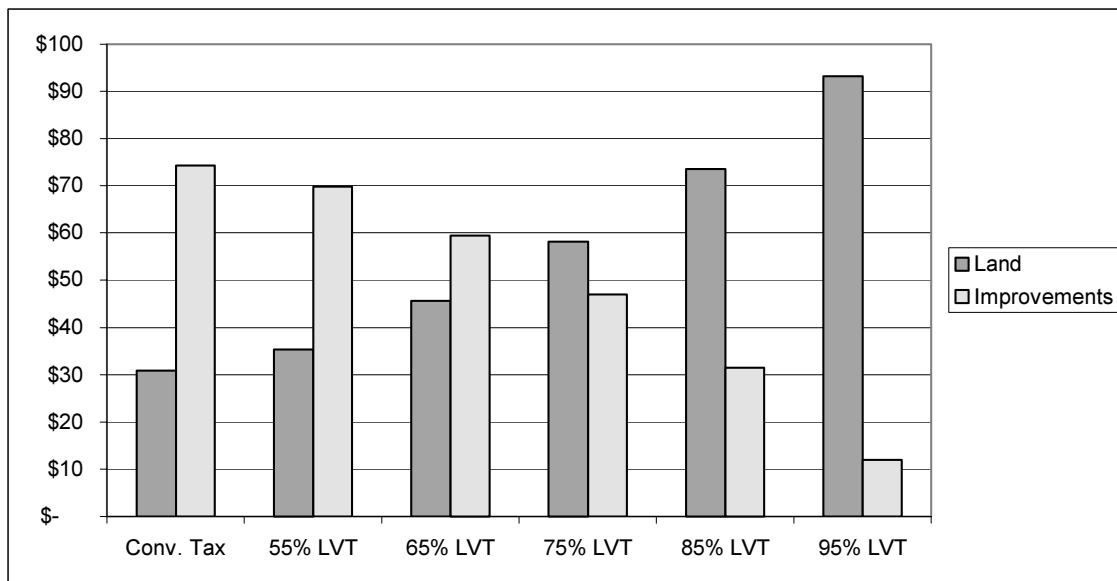
- Discouraging urban sprawl, or the over-consumption of fringe lands
- Encouraging urban infill development, especially in central areas
- Discouraging disinvestment in buildings through neglect
- Encouraging the growth of compact and vibrant commercial districts
- Discouraging land speculation, or holding land out of production
- Encouraging affordability by dampening residential land price inflation

Do the findings of the Salem Study support the case for incentive taxation? As a general observation, it does appear that the *direction* of tax shift accompanying the conversion to a differential tax is the “right” course. Tax shift favors more intensive land uses such as street-oriented commercial buildings and higher density multifamily apartments. Conversely, it impacts more heavily vacant and underutilized sites. The question largely left unanswered in this study is whether the *extent* of tax shift is sufficient to produce the desired incentive effects, thereby achieving the stated public purposes.

It is evident that increasing the tax rate differential between land and improvement assessments can enhance incentive effects. Figure 7.1 shows that the weight of a RMV conventional tax on all metro Salem properties combined, including vacant sites, falls on improvements. As the 2-rate tax phases in, the balance shifts toward land assessments, but only slightly at the initial 55% LVT level. The balance of tax burden shifts onto the land after about the 70% LVT level, and reverses the impact of the conventional tax at the 85% level. Experience with the land tax shows that the incentive effects are greater in sub-areas where land values are high.

As stated in Chapter 4, the proportionate (percentage) shift accompanying a change to LVT depends upon the ratio of assessed land values to total assessed values within a taxing jurisdiction. Vacant lots and surface parking lots (the latter usually found on higher value sites) will experience higher proportional tax shifts, as their L-T-V ratios approach 1. But in dollar terms, the upward shift tends to be moderate. Although, in high value sub-areas such as the Salem central business district, dollar amounts will be significant, especially as the LVT level reaches the maximum.

Figure 7.1
DIFFERENTIAL TAX IMPACTS ON LAND & IMPROVEMENTS
 CONVENTIONAL TAX COMPARED TO A GRADUATED LAND VALUE TAX
 COMBINED JURISDICTIONS



Amounts in millions

Figure 7.2 represents a 10% sample of all taxable parcels in the metro Salem area, including every tenth parcel rank ordered by percentage tax shift accompanying a 95% LVT. The figure illustrates the relationship between the observed L-T-V ratio and the tax shift ratio. (Note the maximum percentage increase in tax shift, about 250%, is higher than the comparable figures found in Chapter 6 tables which show *averages* for each land use class.) The distribution shows a steep increase in proportional tax shift beyond the .6 L-T-V ratio. That is, the most significant upward shift occurs on parcels where the land assessment comprises more than 60% of the total assessment. Likewise, the most substantial tax reductions are found among developed parcels where the land assessments comprise less than 25% of the total.

Distributing the Burden of Tax Shift

A general measure of fairness associated with a property tax system is the distribution of tax burden amongst property owners. Single family home sites constitute about 85% of the total properties in metro Salem. Individual parcels can be used to compare the distributional effects under the TAXABLE value conventional tax currently in effect, with the land value tax. Under a conventional tax application, the top decile (10%) of a rank order frequency distribution of tax billings contribute 20.3% to the total tax for this class. The bottom decile of homeowners pay 4.6% of the total tax collection (see Figure 7.3). As an LVT is introduced, the distribution of tax burden evens out, becoming progressively more even as the LVT level increases. At the 95% LVT level, the top decile of homeowners owe 17.2% of the total tax, while the bottom decile owe 6.5% of the total. This outcome holds independent of the structure of assessments.

Figure 7.2
RELATIONSHIP BETWEEN LAND-TO-TOTAL VALUE RATIO AND TAX SHIFT

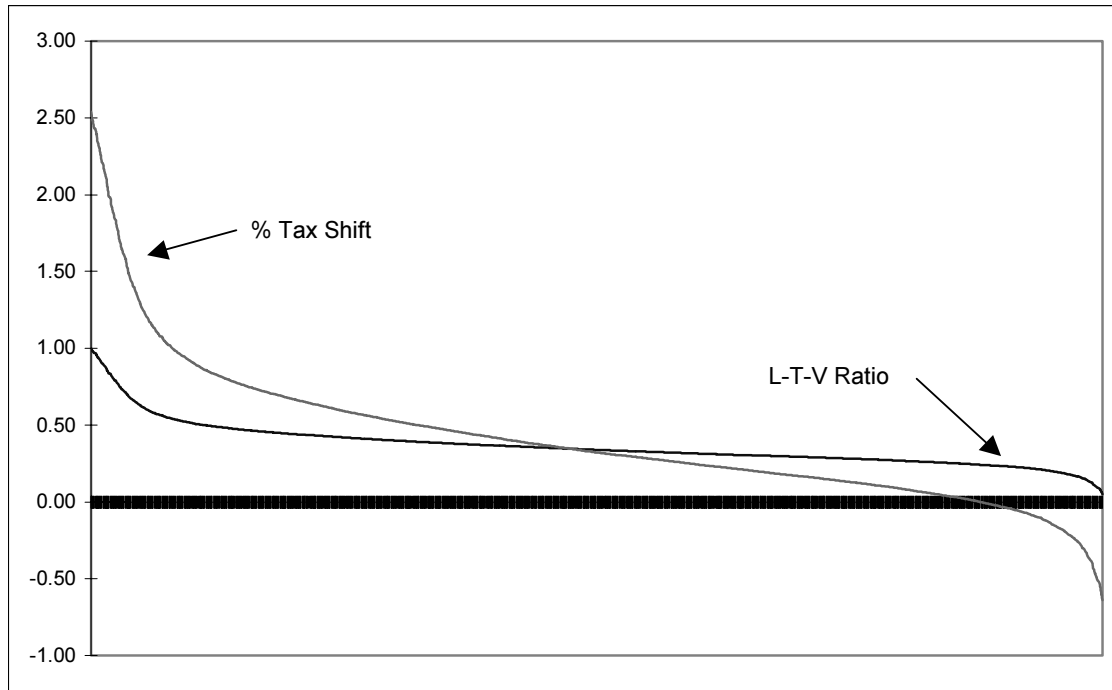
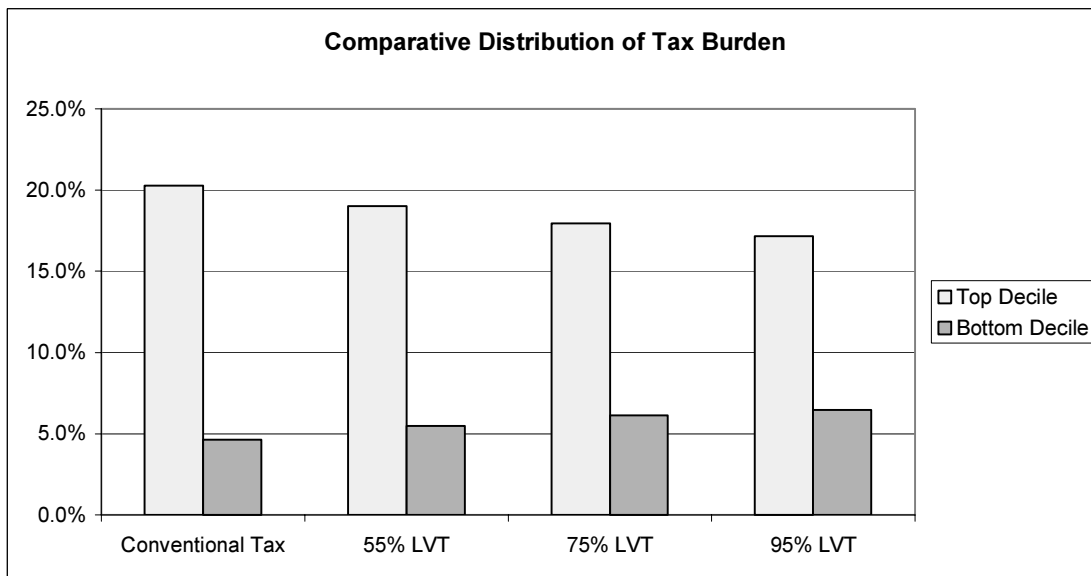


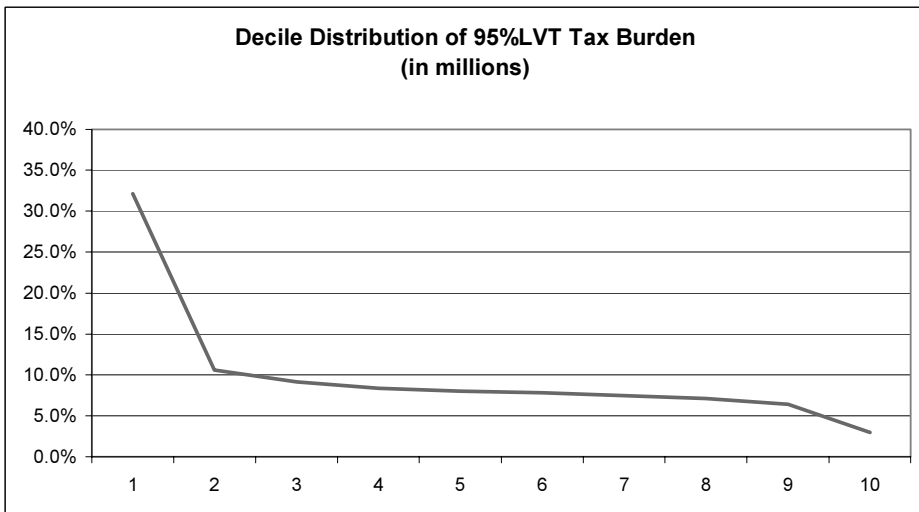
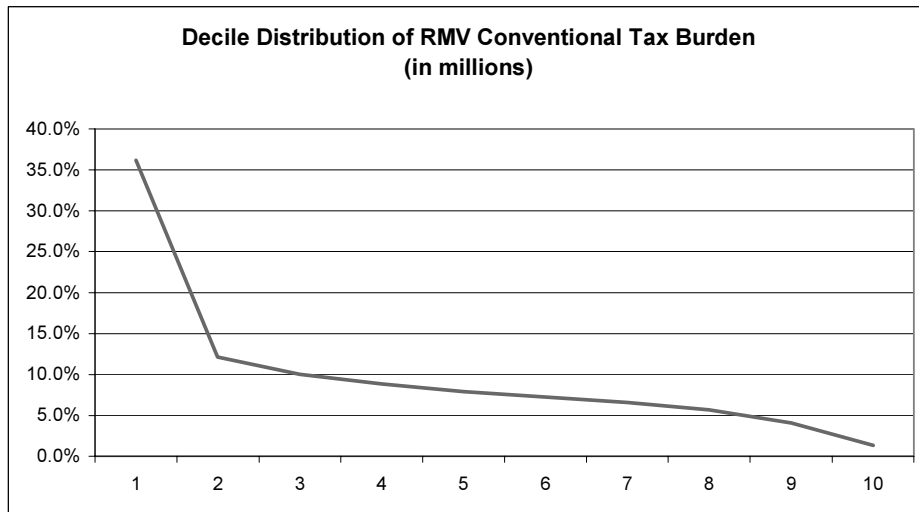
Figure 7.3
COMPARATIVE SHARE OF TAX BURDEN, SINGLE FAMILY RESIDENTIAL LAND USE CLASS



* Reported valuations

A similar pattern is found when real market assessments are used in tax applications. A sample extracted from RMV tax outcomes is used to illustrate the decile distribution of tax burden among parcels in *all land use classes* (see Figure 7.4). Again, conventional tax revenues are concentrated in fewer parcels, whilst the amounts paid under a 2-rate tax are more evenly distributed. For example, the top 10 percent of tax paying parcels contribute about 36% of the tax revenues, compared to 32% under the maximum land value tax. The effect is similar in all three jurisdictions. The reduced concentration of tax burden can be partially attributed to a significant number of vacant and under-utilized parcels (having comparatively low total assessed values) that are subject to an upward tax shift. (Note the higher percentage figures associated with the top decile in the aggregated sample compared with the single family extraction. This is caused by the inclusion of larger and higher value properties found in the non-residential land use classes.)

Figure 7.4
COMPARATIVE SHARE OF TAX BURDEN, ALL LAND USE CLASSES



* 49% sample of all parcels, all jurisdictions

Consequences of Land Value Assessment Practice

Ultimately, the tax shift on any individual parcel accompanying a change to a land-based tax is affected by the entire structure of property assessments within a jurisdiction, particularly as regards the value of land relative to buildings. If one class of land sites is undervalued or overvalued, the tax shift effects will be felt on all other parcels, resulting in unintended consequences. The following two incidences concerning land use classes and lot size differences reveal some apparent idiosyncrasies in LVT modeling outcomes.

Dislocation Effects of Undervaluing Non-residential Land

The L-T-V ratio (.08) for the industrial land use class appears to be unusually low, especially in the Salem jurisdiction. The L-T-V ratio (RMV assessments) for all land use classes combined is .30. Conversely, the unit building values for this class seem high in view of the low floor area ratios observed, that is, .16 on both industrial and commercial sites. By way of comparison, industrial properties in metropolitan King County, Washington are found to have an L-T-V ratio of .41, the same as the commercial class.

If the industrial land and building assessments in the Salem data set were adjusted to reach the same L-T-V ratio as developed properties in the commercial class (.27), the RMV land value total would increase from \$52.8 million to \$206 million, and the building value would decrease by the difference. A conventional tax on industrial as well as all other properties would remain the same as under the current RMV assessment structure because the total value upon which the tax is based is unchanged in this hypothetical scenario. But with the adjustment in industrial valuations alone, tax burden effects on other use classes would change significantly under a land value tax. The greatest impact would be felt on residential properties, where the total tax burden decreases by over \$4 million at the maximum LVT level.

Again, individual single family parcels can be used to compare tax burden effects under current and adjusted RMV assessments. As previously reported in Table 6.7, the *total* combined tax shift accompanying a change from a taxable assessment conventional tax to the maximum land value tax amounts to a 4.5% increase for this class. At lower LVT levels, however, the tax shift is negative. Given the current assessment structure, the tax shift changes from negative to positive at about the 80% LVT level, as illustrated in the summary Table 7.1a. By way of contrast, the industrial class experiences a change from positive to negative tax shift at about the 90% LVT level.

If the *adjusted* assessments were used in a hypothetical tax application, the single family class as a whole would experience a negative tax shift at all LVT levels, while the industrial class would see a positive shift at all levels of a land value tax (see Table 7.1b). Figure 7.5 shows the total tax revenue obtained from current taxable values, followed by the simultaneous positive and negative tax shift accompanying a revenue-neutral change to a land value tax at the 75% LTV level.

Table 7.1a

TOTAL TAX SHIFT, BY LAND USE CLASS: REPORTED VALUE ASSESSMENTS
COMPARING TAXABLE CONVENTIONAL TO RMV TWO-RATE
ALL JURISDICTIONS

| Land Use Class | No. Parcels | Percent Change in Total Tax | | | | |
|-------------------------------|-------------|-----------------------------|---------|---------|---------|---------|
| | | 55% LVT | 65% LVT | 75% LVT | 85% LVT | 95% LVT |
| Single family detached | 39,832 | -5.5% | -3.7% | -1.6% | 1.1% | 4.5% |
| Multi-family 2-4 units | 1,668 | -1.7% | -3.0% | -4.5% | -6.3% | -8.5% |
| Multi-family apartments | 983 | -11.3% | -18.7% | -27.6% | -38.5% | -52.2% |
| Mobil home park units | 940 | 1.5% | 7.0% | 13.5% | 21.5% | 31.5% |
| Group quarters | 37 | -5.9% | -15.0% | -26.2% | -40.1% | -57.8% |
| Homestead | 411 | 6.6% | 8.9% | 11.6% | 14.9% | 18.9% |
| Hotel | 29 | -1.7% | -7.0% | -13.4% | -21.4% | -31.8% |
| Retail store | 580 | -3.6% | -1.2% | 1.8% | 5.5% | 10.3% |
| Retail - restaurant, lounge | 228 | -0.5% | 6.1% | 14.1% | 24.1% | 36.9% |
| Commercial services | 69 | -8.4% | -5.6% | -2.2% | 2.0% | 7.3% |
| Commercial - auto related | 236 | -1.3% | 7.7% | 18.6% | 32.3% | 49.8% |
| Office | 552 | -1.8% | -2.6% | -3.5% | -4.7% | -6.1% |
| Public / semi-public building | 166 | -0.9% | 0.6% | 2.4% | 4.6% | 7.5% |
| Recreation facility - outdoor | 42 | 1.7% | 7.0% | 13.4% | 21.3% | 31.3% |
| Warehouse | 379 | -5.3% | -5.1% | -4.7% | -4.3% | -3.7% |
| Industrial | 457 | 98.9% | 78.5% | 53.4% | 21.9% | -19.0% |
| Farm | 360 | 1.0% | 1.8% | 2.8% | 4.1% | 6.1% |
| Surface Parking | 270 | 7.9% | 34.7% | 67.4% | 108.2% | 160.7% |
| Vacant | 346 | 23.8% | 52.6% | 87.2% | 129.7% | 183.0% |
| | 47,585 | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |

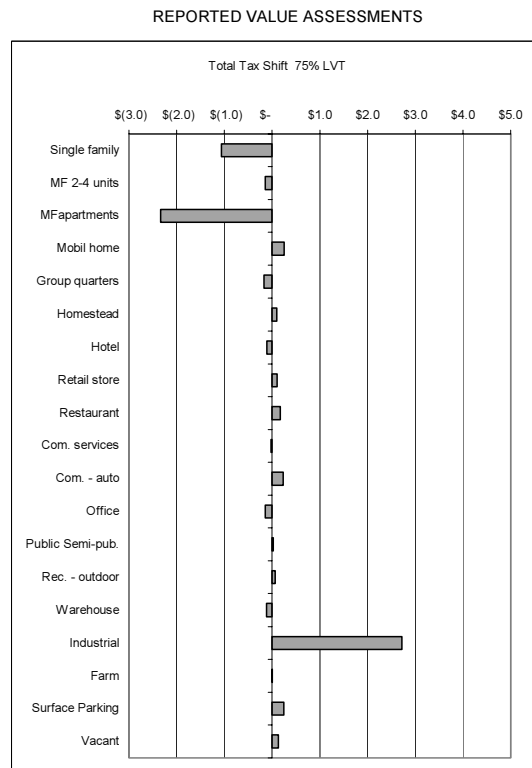
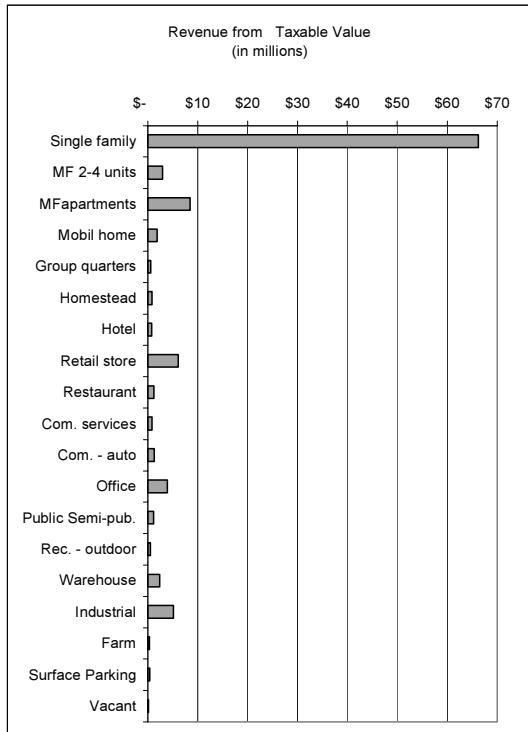
Expansion and summary of Table 6.7

Table 7.1b

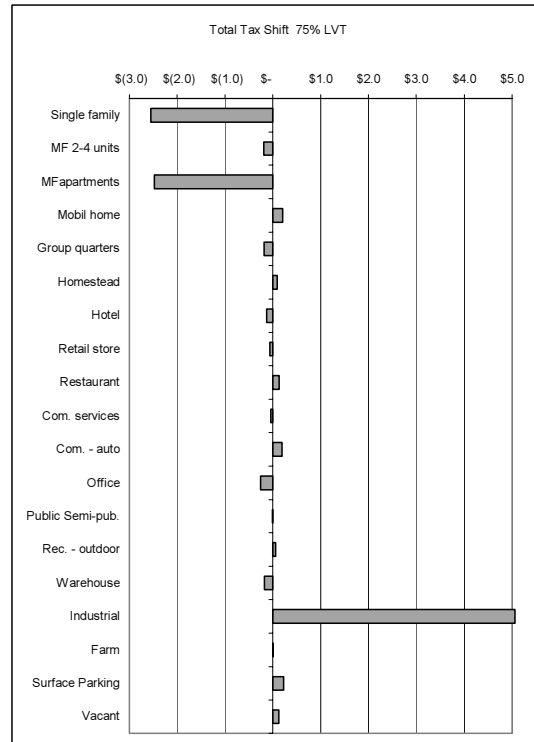
TOTAL TAX SHIFT, BY LAND USE CLASS: ADJUSTED INDUSTRIAL ASSESSMENTS
COMPARING TAXABLE CONVENTIONAL TO RMV TWO-RATE
ALL JURISDICTIONS

| Land Use Class | No. Parcels | Percent Change in Total Tax | | | | |
|-------------------------------|-------------|-----------------------------|---------|---------|---------|---------|
| | | 55% LVT | 65% LVT | 75% LVT | 85% LVT | 95% LVT |
| Single family detached | 39,832 | -5.8% | -4.9% | -3.9% | -2.6% | -1.0% |
| Multi-family 2-4 units | 1,668 | -2.0% | -4.0% | -6.4% | -9.3% | -12.7% |
| Multi-family apartments | 983 | -11.6% | -19.8% | -29.4% | -40.9% | -54.9% |
| Mobil home park units | 940 | 1.1% | 5.7% | 11.1% | 17.4% | 25.2% |
| Group quarters | 37 | -6.3% | -16.3% | -28.2% | -42.6% | -60.3% |
| Homestead | 411 | 6.5% | 8.5% | 10.8% | 13.4% | 16.6% |
| Hotel | 29 | -2.3% | -8.7% | -16.3% | -25.5% | -36.9% |
| Retail store | 580 | -4.0% | -2.7% | -1.1% | 0.9% | 3.3% |
| Retail - restaurant, lounge | 228 | -0.9% | 4.5% | 11.0% | 18.8% | 28.4% |
| Commercial services | 69 | -8.9% | -7.1% | -5.0% | -2.5% | 0.5% |
| Commercial - auto related | 236 | -1.8% | 5.9% | 15.1% | 26.2% | 39.8% |
| Office | 552 | -2.4% | -4.3% | -6.6% | -9.5% | -12.9% |
| Public / semi-public building | 166 | -1.4% | -1.2% | -0.8% | -0.4% | 0.1% |
| Recreation facility - outdoor | 42 | 1.4% | 6.1% | 11.5% | 18.1% | 26.1% |
| Warehouse | 379 | -5.8% | -6.7% | -7.7% | -8.9% | -10.4% |
| Industrial | 457 | 106.3% | 103.1% | 99.3% | 94.6% | 88.8% |
| Farm | 360 | 0.9% | 1.2% | 1.6% | 2.3% | 3.1% |
| Surface Parking | 270 | 7.4% | 32.5% | 62.2% | 98.2% | 142.6% |
| Vacant | 346 | 23.4% | 51.2% | 84.1% | 123.6% | 171.9% |
| | 47,585 | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |

Figure 7.5 **TOTAL TAX SHIFT, BY LAND USE CLASS:**
COMPARING RESULTS FROM REPORTED VALUE ASSESSMENTS WITH ADJUSTED INDUSTRIAL ASSESSMENTS



ADJUSTED INDUSTRIAL ASSESSMENTS



As for the numbers of single family property owners affected by tax shifts, the majority would experience a negative shift during the phase-in of the LVT, given the current assessment structure (see Figure 7.6). The balance would tip into the positive range at about the 75% LVT level. If the assessment ratios for the industrial class were adjusted, the majority of single family parcels would not see an upward tax shift until about the 85% LVT level. The dollar amount of tax shift affecting this land use class is also both positive and negative, depending upon the L-T-V ratio of each property. At the 75% LVT level, the negative amount (\$4.9 million) still outweighs the positive by about \$1 million, the balance shifting just short of the 85% LVT level (see Figure 7.7). Under the adjusted assessment scenario, the negative amount exceeds the positive amount at all 2-rate tax levels.

Figure 7.6a
TOTAL TAX BURDEN SHIFT, SINGLE FAMILY RESIDENTIAL LAND USE CLASS

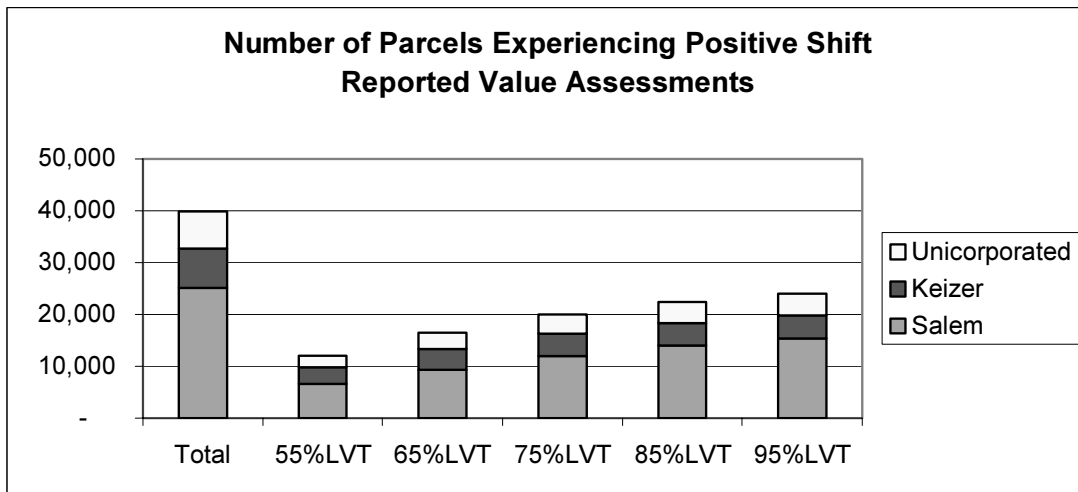
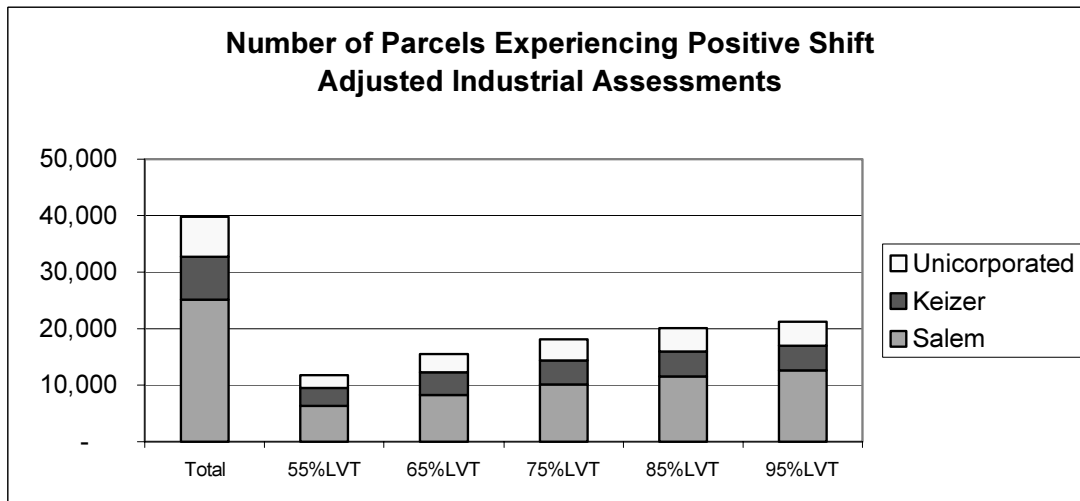


Figure 7.6b
TOTAL TAX BURDEN SHIFT, SINGLE FAMILY RESIDENTIAL LAND USE CLASS



TOTAL TAX BURDEN SHIFT, SINGLE FAMILY RESIDENTIAL LAND USE CLASS

Figure 7.7a

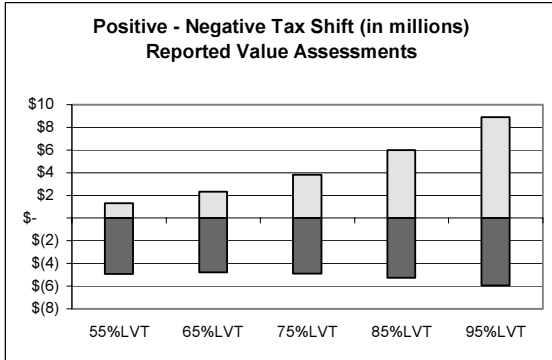
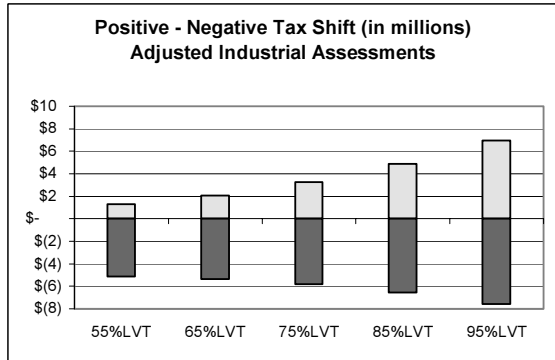


Figure 7.7b



Diminished Incentive Power of LVT on Large Lots

The previous analysis of site and value ratios in Chapter 4 revealed the apparent disparity between site utilization and land value assessments within the residential land use class. The standard practice of assigning lower value to “excess land” on individual large-lot parcels results in L-T-V ratios comparable to small-lot development (about .36). This means that 2-rate tax impacts on residential sites are not commensurate with land consumption and would not produce the incentive to develop more intensively. The extent of “land value decay” and its effects can be illustrated in the following analysis.

The mean land value assessment for large lots (> 13,000 sf) is \$51,654, compared to a mean of \$41,502 for small lots (< 8,000 sf) – despite the fact that average large lots are more than four times the size. Thus, unit land values amount to \$1.52 and \$5.24 per square foot respectively. (Note that the parcels extracted for this analysis consist of only 28% of the total single family lots in the land use data set, and are not representative of the total. Caution should be used in interpreting the following results. The actual tax shifts would be moderately less than what is observed here.)

Utilizing typical residential lot development standards, one can arrive at a standard unit land area (SULA) upon which a single house is built. Selecting the .11 acre lot size class (48 ft X 100 ft) as the SULA, all parcels in the sample data set are grouped into multiples of this figure, and the mean unit land values according to RMV assessments are calculated for each class increment. Table 7.2 shows the progressive decline in unit values as the amount of excess land area increases. Mean *residual* land values are found by subtracting mean unit land values for each class from the mean of the standard class, where SULA = 1 and the mean unit land value is \$6.91. The accompanying Figure 7.8 illustrates the actual extent of land value decay, or the diminution of unit land values by increasing lot size.

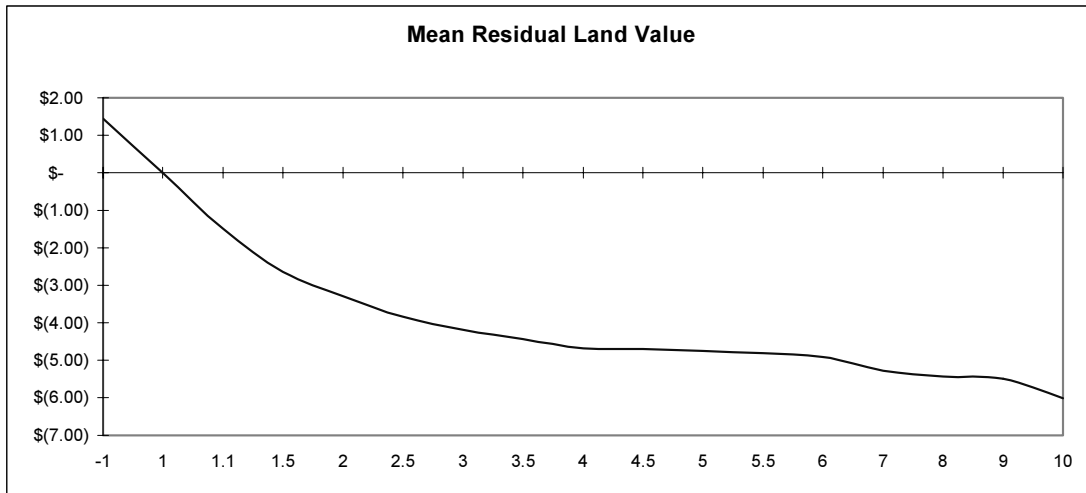
Table 7.2
SALEM METRO - LAND VALUE DECAY EFFECTS OF SINGLE FAMILY LOT SIZE
MEAN UNIT LAND VALUES*, BY STANDARD UNIT LAND AREA INCREMENTS

| Standard Unit Land Area Multiple | Lot Area Exceeding SULA | Count | Mean Unit Land Value | Mean** Residual Land Value |
|-------------------------------------|-------------------------|--------|-------------------------|----------------------------------|
| -1 | | 190 | \$ 8.36 | \$ 1.45 |
| 1 | 0 | 92 | \$ 6.91 | \$ 0.00 |
| 1.1 | 435 - 2,500 | 1,376 | \$ 5.42 | \$ (1.49) |
| 1.5 | 2,600 - 4,600 | 2,247 | \$ 4.26 | \$ (2.64) |
| 2 | 4,700 - 7,200 | 2,702 | \$ 3.61 | \$ (3.30) |
| 2.5 | 7,300 - 9,400 | 1,019 | \$ 3.07 | \$ (3.83) |
| 3 | 9,500 - 11,800 | 684 | \$ 2.72 | \$ (4.18) |
| 3.5 | 11,900 - 14,200 | 565 | \$ 2.48 | \$ (4.43) |
| 4 | 14,300 - 16,800 | 530 | \$ 2.22 | \$ (4.69) |
| 4.5 | 16,900 - 19,000 | 253 | \$ 2.21 | \$ (4.70) |
| 5 | 19,100 - 21,600 | 145 | \$ 2.15 | \$ (4.76) |
| 5.5 | 21,700 - 23,800 | 126 | \$ 2.10 | \$ (4.81) |
| 6 | 23,900 - 28,600 | 166 | \$ 1.99 | \$ (4.92) |
| 7 | 28,700 - 33,400 | 132 | \$ 1.64 | \$ (5.27) |
| 8 | 33,500 - 38,200 | 210 | \$ 1.47 | \$ (5.44) |
| 9 | 38,300 - 43,000 | 113 | \$ 1.42 | \$ (5.49) |
| 10 | 43,100 - 900,000 | 497 | \$ 0.89 | \$ (6.02) |
| TOTAL | | 11,047 | \$ 3.55 | \$ (3.36) |

* RMV assessed land value per square foot of lot area

** Unit land value decrease attributed to excess lot area

Figure 7.8 LAND VALUE DECAY: DIMINUTION OF UNIT LAND VALUES BY INCREASE IN LOT SIZE



The above observations are not meant to suggest that the land values of individual parcels should be assessed strictly on a square footage basis. However, the consumption of “excess” urban land as a desired amenity does have a price, and can be viewed as an external social cost borne by the community at large, resulting from added travel distances, automobile dependency and other externalities associated with urban sprawl. The incentive power of land value taxation is clearly reduced if large lots are undervalued, not from the viewpoint of the individual owner, but rather when considering both internal and external costs. Incentive power is manifested as the added annual tax burden accompanying the change to LVT is capitalized into higher residential lot prices.

Stronger and weaker incentive effects can be illustrated by inserting different land valuation assumptions into a tax application spreadsheet, using the mean or typical land and building values for each lot size class. Tax rates are also adjusted to reflect the observed total tax outcomes on all single family lots in Metro Salem (\$62.1 million in conventional tax revenue, and a 11.4% total shift accompanying a 95% LVT).

Utilizing the observed mean land values for tax applications, the RMV conventional tax on a typical large-lot residence is only \$400 more than the tax on a small-lot residence, as shown in Table 7.3. The land value tax differential is similar. Tax shift resulting from the maximum LVT is nearly the same on both size classes, owing to the somewhat larger average building assessment on large-lot residences (resulting in comparable L-T-V ratios). Because the mean unit land value (\$1.52) is much lower than what obtains for the typical small-lot parcel, there is no tax incentive for purchasers of large-lot properties to consider consuming less residential land area.

Table 7.3
TAX BURDEN SHIFT, BY LOT SIZE CLASS
 AVERAGE SINGLE FAMILY DEVELOPED PARCEL - COMBINED JURISDICTIONS

Using Observed Mean Unit Land Values

| Lot Size Class | Average Lot Size | Observed Mean Unit Land Value | Land Value | Building Value | L-T-V Ratio | Conventional | | |
|--------------------|------------------|-------------------------------|------------|----------------|-------------|--------------|----------|----------|
| | | | | | | RMV Tax | 95% LVT | % Change |
| S <8,000sf | 7,928 | \$ 5.24 | 41,502 | 72,466 | 0.36 | \$ 1,509 | \$ 1,804 | 19.5% |
| M 8,000 - 13,000sf | 10,165 | \$ 3.68 | 37,388 | 71,945 | 0.34 | \$ 1,448 | \$ 1,639 | 13.2% |
| L >13,000sf | 33,958 | \$ 1.52 | 51,654 | 92,377 | 0.36 | \$ 1,908 | \$ 2,250 | 17.9% |

Using SULA Unit Land Values*

| Lot Size Class | Average Lot Size | Assigned Mean Unit Land Value | Land Value | Building Value | L-T-V Ratio | Conventional | | |
|--------------------|------------------|-------------------------------|------------|----------------|-------------|--------------|----------|----------|
| | | | | | | RMV Tax | 95% LVT | % Change |
| S <8,000sf | 7,928 | \$ 6.91 | 54,761 | 72,466 | 0.43 | \$ 1,685 | \$ 2,332 | 38.4% |
| M 8,000 - 13,000sf | 10,165 | \$ 6.91 | 70,216 | 71,945 | 0.49 | \$ 1,883 | \$ 2,946 | 56.5% |
| L >13,000sf | 33,958 | \$ 6.91 | 234,570 | 92,377 | 0.72 | \$ 4,330 | \$ 9,530 | 120.1% |

* Standard Unit Land Area = 4,800 sf ; Mean Unit Land Value = \$6.91

If the land assessments were instead based on standard unit land values, the results would be dramatically different. Because the average small-lot size is larger than the SULA, the applied unit land value for this class would rise, from \$5.24 to \$6.91, increasing the L-T-V ratio to .43. A 2-rate tax on this typical 8,000 sf “small lot” would result in a tax shift of 38.4 percent. However, the adjusted land value assessment of a large-lot residence would jump to over \$234,000, yielding a .72 L-T-V ratio. Tax shift resulting from a conversion to the maximum 2-rate tax would now increase by as much as 120 percent – more than double the increase observed under the current assessment structure. The tax incentive effect is now strongly in favor of the small-lot occupant. In fact, owners of residences situated on SULA-size lots (4,800 sf) would see almost no tax shift in the conversion to a maximum LVT.

The conclusion to be drawn from this is: residential lot sizes in metro Salem are typically much larger than needed to comfortably place a single family dwelling. This accounts in part for the observed general upwards tax shift accompanying a 2-rate tax for the single family class. Beyond this, there is little difference in tax shift between large and small lot sizes, given current assessment practices that seem to overcompensate for “excess land” area. The power of incentive taxation to conserve land could be enhanced by diminishing land value residuals, that is, leveling off the drop in unit land values – especially within the first two multiples of a standard unit land area (from Figure 7.8).

The Capture of Land Rent Through LVT

Do owner-occupied residential properties generate rent? Unlike commercial properties that produce contract rent paid by occupants to building owners, single family residences do not produce building rent. However, owners of all real estate do realize land rent as long as land values continue to rise. The question as to how much rent is retained by owners and how much is captured through annual property taxes can be answered by extrapolating land value growth rates over a hypothetical holding period and modeling the capture effects of both conventional and 2-rate tax systems. The average single family parcel in Salem City is the subject of the following analysis.

Property value growth rates for Salem are extrapolated from historic sales price statistics for Willamette Valley, where home prices had been rising at the average annual rate of 9.08% during the period 1888-98. The model assumes that land and building values increased at the same rate, and that the tax rate and the L-T-V ratio, based on the observed 1998 assessment ratio, is constant during this period. Using the known 1998 average Salem home price and the trend rate of growth, it is possible to estimate a mean purchase price in 1988, representing a 10-year holding period. Thus, the total “resale” price of \$137,596 is \$79,911 more than the 1988 purchase price, corresponding to the cumulative home equity in this typical Salem property. Cumulative holding costs including mortgage payments, property taxes and maintenance are subtracted from total income to arrive at a residual, as shown in Table 7.4.

Dividing the residual by the income yields a rate of return on cost (ROC) for the average Salem single family property owner over the holding period. Results show a positive ROC under both property tax regimes, meaning that the typical homeowner actually recovers all holding costs at resale. All of the equity income consists of land rent – if improvements to the building comprise general maintenance, not upgrades, and the increase in assessed building value accurately reflects the true worth of the structure, not mark-ups linked to site value. (The latter assumption may not be realistic, as discussed later in the analysis.)

Given the 9% average annual increase in land values, how much of the cumulative land value gain over the holding period is captured by property taxes? The capture rates shown in Table 7.4 illustrate the stronger effects of LVT compared to conventional taxes.

Table 7.4

**SALEM CITY MEAN SINGLE FAMILY HOME PRICE GROWTH TREND
RETURN ON COST AND LAND VALUE CAPTURE RATES**

10-YEAR HOLDING PERIOD

| | |
|---------------------|------------|
| 1988 purchase price | \$ 57,685 |
| 1998 resale price * | \$ 137,596 |

RETURN ON COST:

| | | |
|----------------------------------|------------------|------------------|
| Cumulative: | Income | Costs |
| Cumulative home equity | \$ 79,911 | |
| Down payment | | \$ 5,769 |
| Principal+Interest+Insurance | | \$ 49,175 |
| Conventional Property tax | | \$ 14,136 |
| Maintenance | | \$ 8,000 |
| Total | \$ 79,911 | \$ 77,079 |
| Residual | \$ 2,832 | |
| Return on cost | 3.5% | |

| | | |
|------------------------------|------------------|------------------|
| Cumulative: | Income | Costs |
| Cumulative home equity | \$ 79,911 | |
| Down payment | | \$ 5,769 |
| Principal+Interest+Insurance | | \$ 49,175 |
| 95% LVT | | \$ 16,297 |
| Maintenance | | \$ 8,000 |
| Total | \$ 79,911 | \$ 79,240 |
| Residual | \$ 671 | |
| Return on cost | 0.8% | |

LAND VALUE CAPTURE RATES:

| | |
|------------------------|------------------|
| Cumulative: | |
| Land value gain | \$ 26,347 |
| Conventional tax | \$ 14,136 |
| 95% LVT | \$ 16,297 |
| Conv. tax capture rate | 53.7% |
| LVT capture rate | 61.9% |

* Data source: Willamette Valley Multiple Listing Service

Although the 95% LVT (total tax) captures more of the cumulative gain of \$26,347, more than a third of the speculative gain remains in the hands of the owner. In the final analysis, the capture rate of a land value tax is determined by both the rate of land value inflation, and the LVT rate level, with inverse effects. The first section of the following Table 7.5 illustrates the variable impact of LVT levels on capture rates. The lowest level (55% LVT) captures barely more than the conventional tax, but the capture rate steps up moderately as the tax rate on land increases. Capture effects of the LVT are more clearly illustrated when the land portion of the tax is separated from the building portion. Here it is seen that the conventional tax on land value captures only 17.7% of the land value gain, whereas the capture rate of the land portion of the LVT ranges from 20% to 56% of the cumulative gain. Because the LVT shifts the tax burden off of building values, the proportion of building value gain taxed by the 2-rate tax diminishes as the LVT level increases, to as little as 3%, compared to a constant 17.7% under the conventional tax.

Table 7.5

COMPARING VALUE CAPTURE RATES

TOTAL TAX

| Cumulative: | | 55%LVT | 65%LVT | 75%LVT | 85%LVT | 95%LVT |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Land value gain | \$ 26,347 | | | | | |
| Conventional tax | \$ 14,136 | \$ 14,136 | \$ 14,136 | \$ 14,136 | \$ 14,136 | \$ 14,136 |
| LVT | | \$ 14,287 | \$ 14,636 | \$ 15,063 | \$ 15,601 | \$ 16,297 |
| Conv. tax capture rate | | 53.7% | 53.7% | 53.7% | 53.7% | 53.7% |
| LVT capture rate | | 54.2% | 55.6% | 57.2% | 59.2% | 61.9% |

TAX ON LAND

| Cumulative: | | 55%LVT | 65%LVT | 75%LVT | 85%LVT | 95%LVT |
|------------------------|-----------|----------|----------|----------|-----------|-----------|
| Land value gain | \$ 26,347 | | | | | |
| Conventional tax | \$ 4,661 | \$ 4,661 | \$ 4,661 | \$ 4,661 | \$ 4,661 | \$ 4,661 |
| LVT | | \$ 5,364 | \$ 6,987 | \$ 8,979 | \$ 11,482 | \$ 14,722 |
| Conv. tax capture rate | | 17.7% | 17.7% | 17.7% | 17.7% | 17.7% |
| LVT capture rate | | 20.4% | 26.5% | 34.1% | 43.6% | 55.9% |

TAX ON BUILDINGS

| Cumulative: | | 55%LVT | 65%LVT | 75%LVT | 85%LVT | 95%LVT |
|-------------------------|-----------|----------|----------|----------|----------|----------|
| Bldg. value gain | \$ 53,564 | | | | | |
| Conventional tax | \$ 9,475 | \$ 9,475 | \$ 9,475 | \$ 9,475 | \$ 9,475 | \$ 9,475 |
| LVT | | \$ 8,923 | \$ 7,649 | \$ 6,085 | \$ 4,119 | \$ 1,575 |
| Conv. tax capture rate | | 17.7% | 17.7% | 17.7% | 17.7% | 17.7% |
| LVT capture rate | | 16.7% | 14.3% | 11.4% | 7.7% | 2.9% |

Average Salem single family property

Single family homeowners have come to expect a return on their investments, but what constitutes a return rate that is fair, not speculative – driven up by land price inflation? In reality, the rate of return on cost is highly sensitive to changes in property appreciation. That is, a slight difference in land or building growth rates produces a significant difference in ROC. (See Figure 7.9.) Indeed, research in the Seattle real estate market found that recent home prices in low value neighborhoods had been increasing at an annual average of 6%, whereas in high value areas the growth rate was 10 percent – yielding an estimated 10-year average ROC ranging from –74 percent to +16 percent.^[1] The disproportionate income advantage to more affluent owners seeking greater equity appreciation in high value locations becomes obvious.

This finding supports the supposition discussed in Chapter 3 that the land price dampening effects of LVT can exert considerable leverage on speculative tendencies in the land market. Most economists studying the effects of land value taxation agree that the marginal tax liability (the difference between the LVT and the conventional tax amount) is capitalized into lower land prices. This can be simulated by using the present year's tax differential to discount the next year's assessed land value, repeating the procedure through successive tax applications during the holding period.^[2]

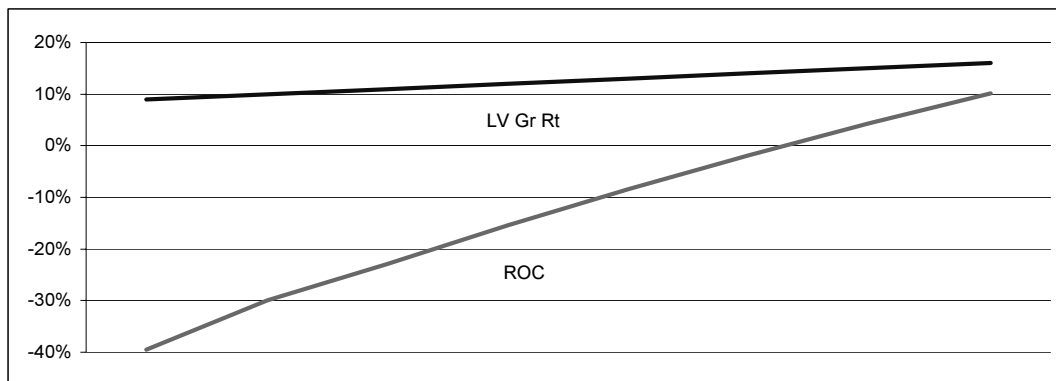
If the 9.08% land and building growth rates are inserted into the simulation model, land values are dampened over the 10-year period, such that a \$23,976 gain is achieved (compared to \$26,347 without consideration of price-dampening effects). This slightly lower gain results in a moderately higher LVT capture rate of 66 percent, and a

moderately lower ROC of -1.6 percent. Note that the price dampening effects do not appear particularly strong in this simulation. This is because building value growth is equivalent to land value growth, thus shifting the LVT tax base off of what otherwise could be higher assessed land values.

If, for the sake of argument, growth in building value assessments were limited to a rate just above the rate of general inflation (6%), and the balance in growth were shifted to land assessments, the first year growth in land values would now be 13.6 percent. Then, as the price dampening effects of LVT are modeled, the 10-year average rate of land value increase diminishes to 10.3 percent. This scenario may be more realistic, as it is difficult to conceive of real building values rising at a nine percent annual rate without a substantial movement of structural upgrading.

In this instance, the holding costs are higher due to the increased land-based tax liability, yielding a significantly lower -12.3% return on cost. This indicates that the total cost of ownership over a ten-year holding period amounts to about \$9,000, or \$75 per month. (Compare this to a cluster of rent receipts that could add up to \$90,000 for equivalent accommodation.) Land value inflation is sufficiently high in this scenario to reduce the 95% LVT capture rate to 45 percent. A non revenue-neutral tax rate would be needed to capture more than half the land value gain. If, in fact, the LVT rate were set to capture all of the cumulative land value gain, total monthly owner costs would amount to \$270.

Figure 7.9 RELATIONSHIP BETWEEN LAND VALUE GROWTH RATE AND RETURN ON COST



(Building value growth rate held to a constant 6 percent.)

It must be concluded from this analysis that residential properties do in fact yield rent or potential income that is derived from speculative land value gain. The land value tax possesses the means to dampen land price inflation, especially if the growth in home values is construed by appraisers to stem primarily from rising site values. It can also be hypothesized that price dampening effects are caused by both the capitalization of marginal land value taxes and the expectation of a lower return on costs. The split-rate tax captures a larger proportion of land value gain than does the conventional tax, but under revenue neutral assumptions does not capture anywhere near the full gain realized over a holding period. The 2-rate LVT helps housing become more widely affordable, and at the same time leaves a substantial amount of equity in the hands of the homeowner.

Chapter 7 Notes

Gihring, Tom. 2000. *The Real Causes of Home Price Inflation*, report prepared for the Coalition for Public Finance Reform, Seattle, WA, November.

Gihring, Tom. 1999. *Simulating the Home Price Dampening Effects of Land Value Taxation*, report prepared for the Coalition for Public Finance Reform, Seattle, WA, September.

Note: More extreme ROC values are attributed to a combination of greater home price differentials, a higher down payment assumption, and higher mortgage interest rates – as reflected during the study period.