



CENTER FOR GOVERNANCE

A TALE OF TWO CITIES:

**LEARNING FROM OREGON'S IDIOSYNCRATIC SYSTEM OF PROPERTY TAX
ADMINISTRATION**

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Abstract

We describe the evolution of Oregon's one-off property tax system, which emphasizes stable growth in tax payments and inter-jurisdictional uniformity in tax rates. We contrast its outcomes in two sections of Portland, which had the best, most fairly administered property tax system in the state under the old regime, – the more affluent neighborhoods on the west side of the Willamette River and the relatively poorer ones on the east side (the two cities of our title). We find assessment quality to be slowly, but steadily deteriorating under the current regime and the gap between the sections of the city gradually widening. Consequently, we find that taxes are more highly correlated with market values on the west side, where homes also face higher average effective-tax rates, than on the east. Overall, however, inter-jurisdictional tax burdens undoubtedly and intra-jurisdictional burdens, even in Portland, probably still correlate better with property values than under the old tax system.

JEL: E62, H2, H22, H71, H79, I22, K34, O18, R14, R21, R51

A TALE OF TWO CITIES:

LEARNING FROM OREGON'S IDIOSYNCRATIC SYSTEM OF PROPERTY TAX ADMINISTRATION

Local reliance on *ad valorem* property taxes is, perhaps, the most distinctive feature of the American tax system. Most students of public finance recognize the theoretical and practical merits of using property taxes to support autonomous local governments. Indeed, our foreign counterparts frequently view the US property-tax system with envy (although not our system of land registration). This is because property taxes can be both fairer and more efficient than other taxes, especially where local autonomy is esteemed, and because reliance on property taxes tends to promote high levels of civic engagement.

However, where the linkage between tax payments and real property values is severed, rendering their incidence arbitrary and capricious, the tax is neither fair nor efficient. Consequently, bad design and administration can reduce the tax's virtues and may, in extreme cases, offset them entirely.

Thanks to a series of initiatives and referenda during the decade of the 1990s, primarily Measure 5, enacted in 1990, and Measure 50, enacted in 1997, Oregon has acquired a one-off property-tax system. The system seems to be somewhat popular. At least the property tax no longer tops the worst-tax list in local polls. Nevertheless, the prestigious City Club of Portland, after a year spent studying property taxes, concluded that "the current Frankentax has got to go." According to the City Club, Oregon's property tax system has progressively weakened the relationship between property values and tax payments, increased the relative tax burden on home owners, especially those with low-incomes, encouraged gentrification, and induced "a confusing, uncoordinated proliferation of tax jurisdictions that cannibalize each other and make accountability more difficult" (City Club, 2013: 1-2).

Are these indictments valid? In this essay we show how the property tax system created by Measures 5 and 50 has played out over time and what Oregon's experience with property-tax reform tells us about the administration of property taxes in general.

Background

Ordinary people don't like taxes. In Oregon this understandable sentiment is the law of the land. This is a direct result of referral of tax proposals (at both the state and local levels of government) to the voters. Tax aversion isn't the only reason for Oregon's wave of initiative-driven property-tax reforms, however. Opponents expressed an array of complaints about the *status quo ante* Measure 5 – disparate inter-jurisdictional tax rates, disparities in local service levels, uneven intra-jurisdictional assessments, legal fractional assessment, a mishmash of permanent and special levies, an incomprehensible, highly volatile system of school funding, etc.

Many Oregonians were particularly dissatisfied with the existing system of school finance, believing that Oregon relied excessively on property taxes to support public schools. Between 1978 and 1988, state aid fell from 45 percent of school funding to 28 percent. Moreover, state school aid formulas were exceedingly complex. The straightforward basic aid plus Strayer-Haig (foundation) equalization-aid programs,

which were in effect during the 1940s, 50s, and 60s, had been augmented by a hodgepodge of special purpose funding arrangements. Attempts to increase equity, make local districts address legislative concerns (plus those of the state education department), comply with federal mandates, and promote greater tax effort at the district level and district consolidation, while at the same time holding districts harmless in terms of state aid, had produced a labyrinthine state school-aid mechanism, which required a 44 page booklet to describe.

Fluctuations in state aid for local school districts, combined with Oregon's levy-based system of determining property taxes, in which district voters adopted a budget levy, state and federal funds were subtracted from the total, and the remainder determined the local property tax rate, meant that school districts, especially those that relied heavily on state dollars, experienced large swings in property tax rates.

Indeed, it would probably not be entirely wrong to say that Oregon's unstable school funding in the pre-Measure 5 era was the doing of the state legislature: between 1950 and 1989 state aid provided as much as 55 percent and as little as 19 percent of total school spending.¹ Furthermore, fluctuations in state school aid were not entirely random; the state legislature tended to increase funding during economic upswings and cut it during recessions, thereby exacerbating the local property tax's bite. In any case, prior to 1988, school districts lacking a permanent levy flirted with closure year in and year out (Stevens and Mason, 1996).

In 1987, then Governor Neil Goldschmidt proposed to fix the school finance system in Oregon by making all local levies permanent, thereby ending school closures, and stabilizing state support, by increasing state aid and indexing it to the rate of inflation multiplied by enrollment growth. While the legislature complied with the first half of the governor's proposal, enacting the so-called school "safety-net" into law, they balked at his funding proposal. Several legislative leaders were reported to say that the governor was proposing a Band-Aid, when what the state school finance system needed was radical surgery.

Measure 5

Measure 5 (brought to us by populist activist Don McIntire and retired Reed College mathematics professor Thomas P. Dennehy) addressed all of these concerns. This initiative capped property taxes by category. The categories are "Education," "General Government" and "Non-Limited"—.5 percent of real market value (RMV) for education and one percent for all other local jurisdictions and districts (approved bond levies and certain other governmental activities are exempt from the limits, i.e., non-limited). It further required the state to replace property tax revenue lost to school, education service, and community college districts as a result of the Measure 5 cap, thereby shifting much of the authority to make decisions about school spending from local voters to the state legislature. Measure 5 also thoroughly reformed the valuation process to make residential assessments accurately reflect market value (RMV) and eliminated variations in

¹ Calculated by dividing total state aid by school spending from the Census of Governments as reported in the *Book of the States* (1950-1988 editions). The State Department of Education reports a range 28-54 percent, which is still substantial.

countywide fractional assessment. Measure 5 was enacted in 1990 and was scheduled to be fully operational in the 1995-6 tax year.

Measure 5 had the anticipated consequences. In the first place it reduced property taxes. According to the best evidence (Waters, Holland, and Weber, 1997), it saved high-income (top quintile) households about \$740 a year on average and low-income (bottom quintile) households about \$35 (i.e., the savings were roughly proportional to tax burdens). Waters and his colleagues also suggest that Measure 5 increased total output and income in Oregon, although even with this increase, state and local government tax revenues were measurably constrained. They concluded that each three-dollar reduction in property tax revenues resulted in a two-dollar reduction in state and local revenues and an increase in federal revenues of somewhat less than one dollar. Measure 5 also stabilized state aid and dramatically reduced inter-district variations in per-pupil spending, primarily by increasing spending in many rural districts at the expense of some urban and suburban districts.

Measure 5 also had various unanticipated consequences. One of the more bizarre of these derived from the inability of many local jurisdictions to adjust their tax rates without an election, while those with permanent levies could. As noted earlier, Measure 5 limited the sum of local (non-school) tax rates that could be imposed on a property to one percent of actual market value (RMV). In most instances, this total was shared between levy-based jurisdictions and other overlapping jurisdictions. Where combined statutory tax rates (STRs) exceeded one percent, each individual jurisdiction was supposed to suffer a pro rata reduction based upon the share its tax rate represented of the total (this mechanism is called 'compression'). Quick-witted financial officers in districts with approved levies soon realized that they could increase their shares simply by raising their tax rates (as long as subsequent revenues were less than the approved levy) and that this could be done without at the same time affecting their residents' tax payments. Instead, their gain came at the expense of other jurisdictions sharing the common tax base.

More significantly, the market value of commercial (including most residential, rental properties) and industrial properties were (and still are) based upon either the present value of the property's income stream (using a statutorily determined discount rate) or replacement value less depreciation, neither of which were immediately affected by Measure 5. In contrast, Measure 5 called for assessments on residential properties to be extrapolated from transactions. Hence, while Measure 5 reduced tax rates, to the extent that property tax cuts were capitalized in sale prices, it also increased residential assessments,² while commercial assessments were largely unaffected in the short run, causing a real but probably unintended shift in the burden of the property tax from commercial property owners to homeowners. In any case, many homeowners got less tax relief under Measure 5 than they had expected.

Finally, according to David Figlio (1998), Measure 5 evidently reduced tax support for the public schools. Figlio found that Measure 5 significantly increased student-teacher ratios and reduced teacher salaries and benefits *vis á vis* median state income, contrary to

²That it did so is part of the conventional wisdom amongst tax mavens, but event studies show no such bump.

nationwide trends for teacher salaries. This outcome was probably not anticipated by many of Measure 5's supporters, but it could, perhaps, have been predicted (Silva and Sonstelie, 1995; Fischel, 2001).

Responses to Measure 5

To fix problems caused by Measure 5, Oregonians got Measure 47 (sponsored by Taxpayers United in 1996). Among other things, Measure 47 rolled back assessments on residential and farm properties and fixed them there. It also created the so-called "double majority" requirement for taxing and spending measures (initiatives and referenda), which specified that levy increases could be approved only where a majority of registered voters actually voted.³

Measure 47 was approved in November of 1996, but immediately ran into trouble in the courts, both because of the vagueness of some of its language and because it violated a rarely enforced rule in the Oregon Constitution prohibiting initiatives with multiple subjects (in this instance, assessment practices and rules governing expenditure measures).

As a result of a deal brokered in the state legislature, Measure 50 was referred to the voters to fix Measure 47. Measure 50, enacted in May, 1997, locked existing jurisdictional tax rates (STRs) in place (which fixed the inter-jurisdictional compression problem), rolled residential property tax assessments back to whichever was less: assessments for the tax year beginning July 1, 1995, reduced by 10 percent, or for the tax year beginning July 1, 1994, and limited future increases in tax assessments, except for new construction or additions, to a maximum of 3 percent per year (which created an intra-jurisdictional compression problem). We call this quantity 'Measure 50 assessed value' (M50AV); it is currently ≤ 140 percent of 1996-7 tax assessed value (TAV), about 60 percent on average of current market value. Currently the average combined statutory property tax rate (STR) in the state is about 2.2 percent. Consequently, Measure 5 limits tend to be binding within a jurisdiction wherever the ratio of TAV/RMV for a specified tax parcel is greater than 65-70 percent ($\approx 1.5/2.2$).

For instance, were the statutory municipal rate .7 percent TAV, the county rate .5 percent, and other permanent district rates .2 percent, the combined statutory tax rate (STR) would be 1.4 percent for General Government. Measure 5 sets the maximum rate for General Government equal to or less than one percent RMV. This means that, if the assessment ratio equaled one, Measure 5 would compress the combined General Government STRs from 1.4 percent to one percent and its components to .5, .357, and .143 respectively. If assessment ratios varied within the jurisdiction, Measure 5 compression would set in wherever TAV/RMV exceeded .714.

To expand upon this example, prior to Measure 50, the Measure 5 limits would have been applied directly to the RMV of a residence, let's say \$125K, producing a tax bill of \$1,250. Measure 50 adjusted TAVs and, thereby, assessment ratios (ARs). Subsequently,

³ In 2008, a referendum to the Oregon Constitution (Measure 56) effectively repealed the double majority requirement included in Measures 47 and 50.

assuming 90 percent of the 1995–6 assessment was less than 1994–5 assessment (although that was not typically the case), the new TAV would have been \$112.5K (or = .9 (\$125K). Let's further assume that statutory rates and RMV remained unchanged. Because the assessment ratio, 112.5/125, was greater than .714, the tax bill would still be \$1,250, but the STRs would be subject to less compression than in the previous tax year – to .556, .4, .159, and 1.11 respectively (1.11 (\$112.5K) = \$1,250). In 1998-9, with a 3 percent increase allowed in assessed value, TAV would have been \$115.9K, and, given an 8 percent increase in the market price of the property, RMV = \$135K; hence, the tax bill would increase to \$1,350 – an 8 percent increase – because the assessment ratio, 115.9/135, remained > .714 (again STRs would be less compressed than in the previous tax year – to .582, .416, .166, and 1.16 respectively (1.16 (\$115.9K) = \$1,350). By 2007-8 however, let's say RMV had increased to \$300K and TAV to \$151.2K. Consequently, the property tax bill would have been \$2,116.7 (1.4 percent (\$151.2K) = \$2,116.7), which was less than the Measure 5 limit of \$3,000 (1 percent (\$300K). In other words, Measure 5 limits would not have been in play (.504 < .7142), no compression would have occurred, and the increase in the tax bill limited to three percent.

FY2013 Oregon TAV:

M50AV = .9 (1996 TAV) + 3% per annum
= 1.40 (1997 TAV) = 1.31 (1996 TAV),
or
2013 RMV,

whichever is less

Along with Measure 5, Measure 50 led to substantial property tax savings for Oregon's taxpayers – property tax payments dropped from five percent of personal income in 1991 to three percent today. In 1988, Oregon's property tax burden ranked 11th out of fifty on a per capita basis and 5th as a percent of personal income.⁴ Oregonians now pay less property tax than the national mean, with the state ranking 23rd per capita and 25th against income. Measure 50 also helped somewhat to rebalance tax burdens between businesses and homeowners.

So far as schools are concerned, Measures 5 and 50 equalized nominal property tax rates at .5 percent statewide, which has for most practical purposes converted this portion of the property tax from a local tax to a state tax.

Where general governments are concerned, the most salient response to Measures 5 and 50 has been to increase user charges and fees, especially development charges or “impact fees.” The city of West Linn, for example, now charges more than \$12,000 in impact fees for construction of a single-family dwelling; Corvallis charges almost twice that. As O'Sullivan, Sexton, and Shiffren (1995) explain, market conditions determine who pays these fees: when the housing market is strong, buyers do, in the form of higher prices; elsewhere the burden is shifted back to developers and landowners; rarely if ever are existing homeowners adversely affected. In any case, prior to Measure 5, fees and charges amounted to less than five percent of local government revenue in Oregon; in 2007-8 they accounted for 35 percent of the total and, even in today's somewhat

⁴All tax figures reported here come from Oregon Tax Research reports, except where otherwise indicated.

depressed housing market, they overshadow the property tax as a source of revenue for a number of jurisdictions.

Finally, in rate-based property-tax systems, where assessments accurately reflect market values, real estate booms and busts can introduce a great deal of volatility into individual tax bills and local property-tax revenues. Measure 50 increased stability on both fronts.

The bottom line is that the system of property taxes under Measures 5 and 50 gives Oregon a lot more funding predictability and stability, it places different jurisdictions on a more equal footing with respect to the provision of public services, it has reduced the burden of property taxes across the board, and has led to increased understanding on the part of voters about how much they will pay and why; it has also greatly reduced local autonomy, made public schools creatures of the state, reduced government services, and reduced reliance on one of the most progressive tax sources available (given that both wealth and income are measures of ability to pay).

How Have Measures 5 and 50 Played Out over Time in Portland?

Aside from the centralization of tax and expenditure functions at the state level, proponents of further property-tax reform make three major criticisms of these arrangements. First, Measure 50's partial reintroduction of fractional assessment, together with the 3 percent growth cap, has reduced assessment quality and, thereby, exacerbated intra-jurisdictional horizontal inequities. Second, because assessments are not readjusted when property is sold (a major difference between Oregon's and California's property-tax arrangements), these inequities have tended to widen over time. Further, because the primary beneficiaries of Measure 50 are the homeowners whose assets have appreciated most rapidly in value, it is often presumed (and sometimes asserted) that Measure 50 has also exacerbated vertical intra-jurisdictional inequities. Third, Measures 5 and 50 attenuated the linkage between local property values and tax burdens, thereby relieving the beneficiaries of general-fund financed local service improvements from the obligation to pay for them (tax payments do not automatically increase when local improvements are capitalized in property value). Instead, the costs of voter-approved, local-government improvements are spread like peanut butter across the community. Hence it is frequently asserted that, following enactment of Measure 50, local opposition to general-fund financed capital improvements and real-estate development intensified.

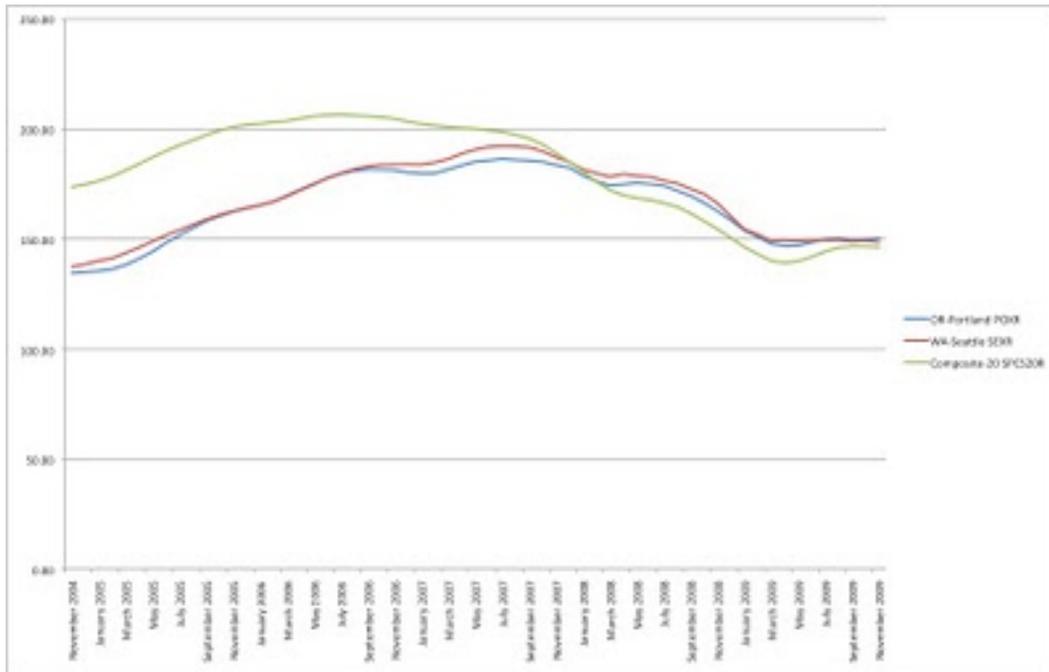
There is some truth to these claims, but as is the case with most things the relevant questions are how much and compared to what? Moreover, these claims generally ignore the effects of Measure 5 compression, which, once instantiated, largely restores the relationship between local property values and tax burdens. In any case, we cannot evaluate these issues without looking at actual property-tax bills. Fortunately, every exit is an entrance somewhere else. Oregon's idiosyncratic property-tax arrangements have given us an extremely accurate system of measuring residential property values (RMV) and a system of assessment that has held relative values roughly constant for 17 years (M50AV). These facts allow us to answer several important questions: how good are current assessments, how fast do assessments degrade in the absence of reassessment and what drives this process, and are property-tax payments growing ever more inequitable and, if so, how fast are these inequities progressing?

Boom and Bust

Based on Case-Shiller home price index, the median home price in the Portland SMSA increased from \$54K in June 1990 to \$93.5K in 1997, to \$117K in May 2003, maxed out at \$187K in July 2007, dropped to a low of \$130K in March 2012, and subsequently recovered to \$155K in June 2013. Figure 1 shows the raw Case-Shiller numbers for Portland, Seattle and the 20-city composite for the period 2003-2012.⁵

When Measure 50 was enacted, it is unlikely that anyone thought about how Oregon’s property tax arrangements would operate in a recessionary environment. Although Oregon’s economy went through a deep slump from 2002-2004, housing inflation continued, steadily widening the gap between RMV and TAV. But, as in much of the rest of the United States, home prices fell sharply after 2007. This had two effects. It narrowed the gap between RMV and TAV, but, more importantly, it made Measure 50 limits binding on an increasing portion of homes.

Figure 1: Raw Case-Shiller Home Price Numbers



The same data that allow us to understand the dispersion of TAV with respect to RMV over time and the direction and bias associated those measures, also allows us to assess the relationship between market valuation and tax payments from the peak to the trough of the business cycle under Oregon’s property tax system. Finally, these data would allow us to simulate the effects on dispersion and tax fairness of various policy modifications, including most importantly reassessment at title transfer, but of other policies as well, although we haven’t done this.

⁵ Accessed October 25, 2013, @ <http://us.spindices.com/indices/real-estate/sp-case-shiller-or-portland-home-price-index>.

Assessment quality

Henry Aaron aptly summarized the case against non-uniform assessments:

We deplore variations in the ratio of assessments to market values because such variation means that the ad valorem property tax is not ad valorem, that a tax which ... should be borne in proportion to the value of property owned is in fact distributed in some other way. It follows, therefore, that we care about inaccurate assessment to the extent that we care about the unfair ... distribution of tax liabilities. (1977, p. 103)

Looking at the Multnomah County data the first thing we learn is that most of non-uniformities in Oregon's property tax assessments – discrepancies between TAV and RMV – were probably present at the creation. Oregon's Department of Revenue (DOR) calculated statewide and countywide coefficients of dispersion (CDs) every year between 1979 and 2001 based upon residential transactional data. Their data show that statewide CDs fell from 46 percent in 1988-9 to 18 percent in 1994-5, with the elimination of statutory fractional assessment, 4 percent the following year, after the new mechanisms for estimating RMV were in place, and then back up to 15 percent after implementation of Measure 50. The DOR concluded that Measure 5 significantly improved assessment uniformity statewide, that the majority of the improvement resulted from improvements in assessment quality outside the Portland Metropolitan area, and that most of these gains remained after the implementation of Measure 50, although rolling assessments back to the lesser of 1994-5 and 90 percent of 1995-6 assessment wiped out some (not all) of the gains in intra-jurisdictional assessment quality from the implementation of the methods mandated by Measure 5. Nevertheless, most of the inter-jurisdictional improvements resulting from the elimination of variations in countywide fractional assessment (which was largely accomplished prior to 1994-5) remained.

DOR data for Multnomah County show a similar pattern. The CD was 26 percent in 1988-9, and 13 percent, 3 percent, and 12 percent in 1994-5, 1995-6, and 1996-7 respectively. Assuming that we can simply extrapolate from transactional samples to data on the full set of residences in Multnomah County,⁶ there was very little change in CDs prior to 2007, from 14 percent in 2003 to 18 percent in 2008. Then, assessment quality declined to 22.5 percent in 2012. Even so, overall assessment quality in Multnomah County is not significantly worse by this standard than it was prior to enactment of Measure 5 and is better than in earlier periods (Dreeson, 1928).

That the intra-jurisdictional discrepancies we now see in assessment ratios (TAV/RMV) largely reflect discrepancies that existed prior to the full implementation of Measure 5 can be seen in Figure 2. The figure to the right shows average assessment ratios by zip code from 2003 to 2012 (the shallow U shape reflects the fact that the numerator was growing at a more or less constant rate of 3 percent per year, while the denominator grew faster than nominator prior to 2008 and slower thereafter or in many cases actually fell, see Figure 1). Generally the zip codes in which assessment ratios fell faster during the

⁶ As we show below, they can be; although some analysts claim that it is statistically improper to do so, because the set of transactions occurring in a given year are a biased and unstable sample of the whole (Gastwirth, 1982; Gold, 2007).

real estate boom experienced relatively faster growth in RMV (all on the east side of the Willamette River); the ones that rose faster during the subsequent real estate bust did so because of bigger drops in property values (mostly on the west side). The ones that stayed low and flat were mostly rural.

Figure 2: Median Assessment Ratios by Zip Code (Multnomah County)

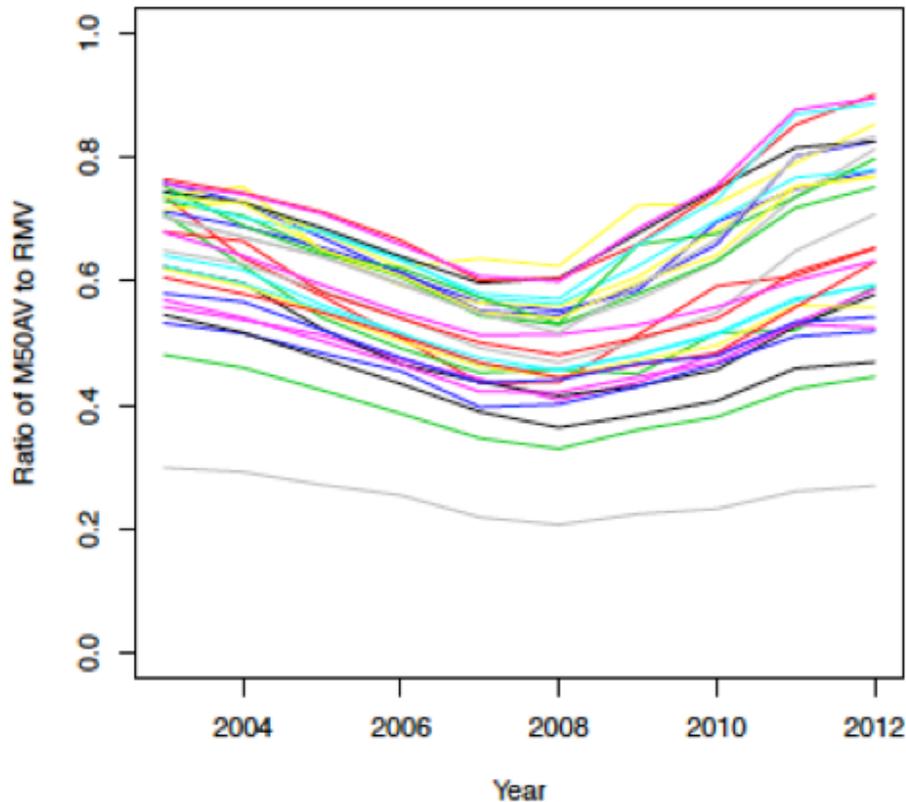
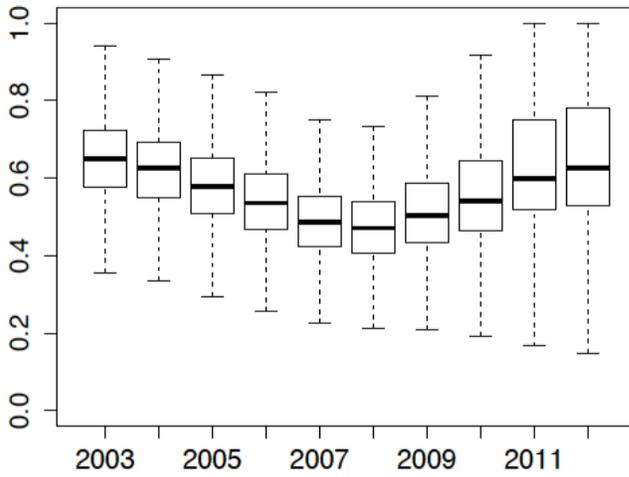


Figure 3, clearly indicates that, even though the relative positions of the curves are not perfectly parallel, the difference between zip codes is greater than the difference within codes.

Figure 3 is a box and whiskers chart showing the countywide variance in assessment ratios (TAV/ RMV) for single-family residences over time. It shows the mean (the solid bar), the standard deviation (the box), and the range (the whiskers) of assessment ratios for every residence in Multnomah County for each year from 2003 to 2012. It implies that most of the intra jurisdictional departures from assessment quality wrought by Measure 50 resulted from the assessment rollback at its start and not from price movements after 1997.

Clearly, there was a fair amount of dispersion in assessments when the current system was installed and, apparently, after 2008, the dispersion increased. But, the bottom line is that assessment quality didn't degrade very much between 2003 and 2012 (the period for which we have data).

Figure 3: Box and Whiskers Plot of Residential Assessment Ratios, Multnomah County



The standardized variance was 20 percent in 2003 and 22.5 percent in 2008; it deteriorated only a little faster after 2008, to >27 percent in 2012. Price depreciation has evidently been slightly more uneven than the earlier appreciation, when a rising tide did apparently lift all boats.

Moreover, Multnomah County's within zip code CDs are fairly consistent over time and reflect generally satisfactory, albeit deteriorating, assessment quality. Across all zip codes, 1997 CDs explain 2/3 of the variation in 2012 CDs. The actual CDs ranged across zip codes from four percent to 26.3

percent in 1997 and from 5.7 percent to 25.7 in 2012. In 1997, CDs in only two of 31 zip codes exceeded 15 percent, the National Association of Real Estate Appraisers' quality standard; by 2012 that standard was exceeded in 25 of the 31 zip codes.

The deterioration of CDs confirms that horizontal inequities are increasing under the existing property-tax regime, evidently slowly, although without accounting for Measure 5 limits and induced compression, we cannot say just how much or exactly how fast.

Whether or not increased dispersion has favored one class of residences or another is an altogether different question. The incidence of gains and losses from increased dispersion could be entirely random, although that conclusion seems to be belied by the substantial

neighborhood effects seen in the Multnomah zip-code data. Property appraisers use an instrument called the price-related differential (PRD) to measure bias. A PRD equal to 1

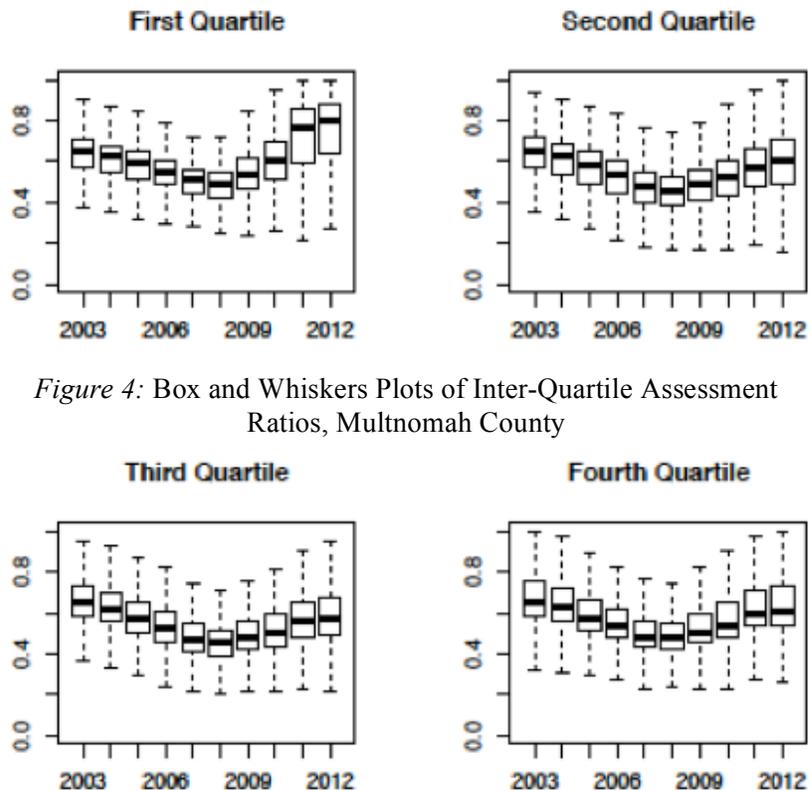


Figure 4: Box and Whiskers Plots of Inter-Quartile Assessment Ratios, Multnomah County

indicates no bias; a PRD greater than 1 indicates a bias in favor of higher valued properties. From 2003 to 2010, the PRD was slightly less than 1 (.98 to .99), in 2011 and 2012, slightly greater than 1 (1.006, 1.014). By the standards of the profession, assessment ratios in Multnomah County are unbiased.

However, things are otherwise where one looks at assessment ratios geographically. Mean ARs are now significantly higher on the west side of the Willamette River than on the east, largely because real estate values have increased faster on the east side than the west. We return to this issue in a bit.

Measure 5 Compression

By definition the maximum assessment ratio (TAR/RMV) is 1, because TAR is defined as the lesser of M50AV and RMV. As can be seen in Figure 4 a significant number of residences in Multnomah County had their TAVs limited by RMV in 2012 and a handful in 2011. If property values dropped enough, every residence would be assessed at RMV; assessment ratios would equal 1, CDs would fall to zero, and tax bills would vary directly with RMVs.

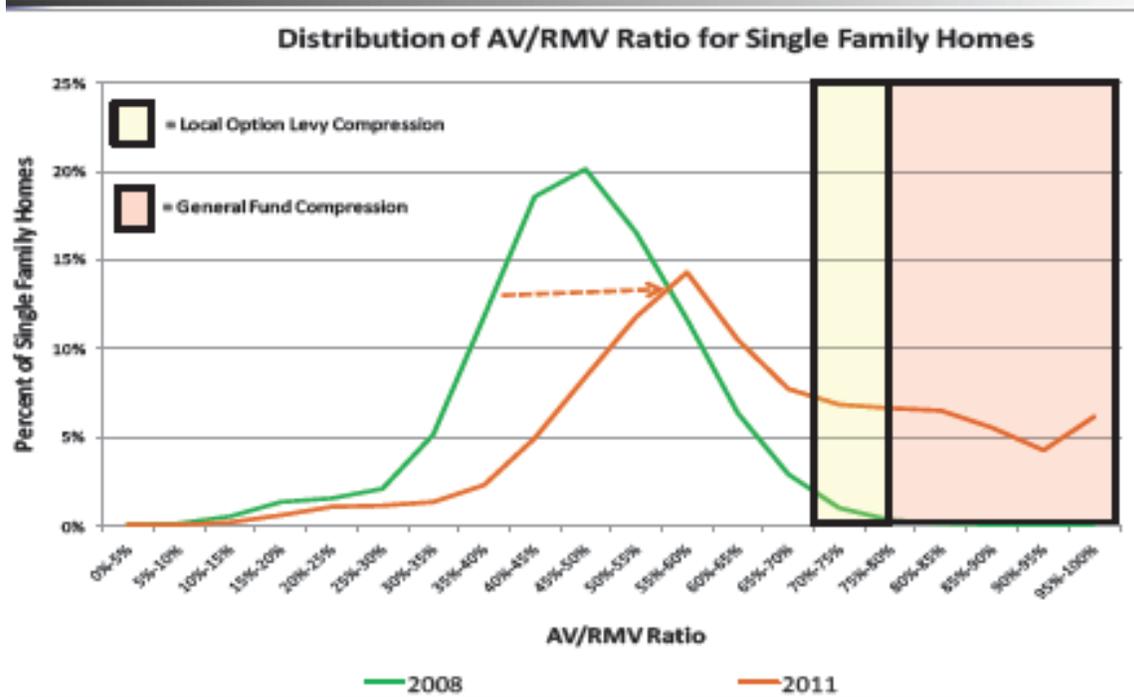
However, as we have seen, any time school district STR > .5 percent or the general government STR > one percent, the Measure 5 limit cap can be called into play at an AR of < 1 (ignoring the separate components of the composite STR, the cut point is defined by 1.5 percent/ STR, where $STR \geq 1.5$). Once the cut point is reached, compression goes into effect, and the individual property tax bill is simply 1.5 percent plus Measure 5-exempt STRs times RMV. Most of the property in compression statewide is commercial or industrial, but the relentless 3 percent growth per annum in M50AV, combined with declines in RMV after 2007, has pushed an increasing proportion of single-family homes into compression, especially in high STR jurisdictions like Portland. Figure 5 shows the effect of compression on single-family homes in Multnomah County.

Figure 5 confirms that, between 2008 and 2011, assessment ratios steadily declined in quality (i.e., the variance or dispersion increased). Note however that in 2008 only 1.5 percent of residences were in compression, by 2011 more than a third were.

Consequently, in 2011, the modal single-family residential tax payment in Multnomah County was approximately 1.5 percent of RMV. Consequently, it seems reasonable to assume that Measure 5-induced compression, at least somewhat, offset the effects of declining assessment quality on the relationship between RMV and tax payments.

The standard approach to assessing property-tax equity involves regressing the log of the tax bill on the log of RMV. In which case the independent variable's coefficient would indicate the elasticity of tax bills with respect to market value (a diagnostic indicator of possible vertical inequity where less than 1) and the coefficient of determination would measure horizontal equity (a larger R^2 implies greater horizontal equity).

Figure 5:

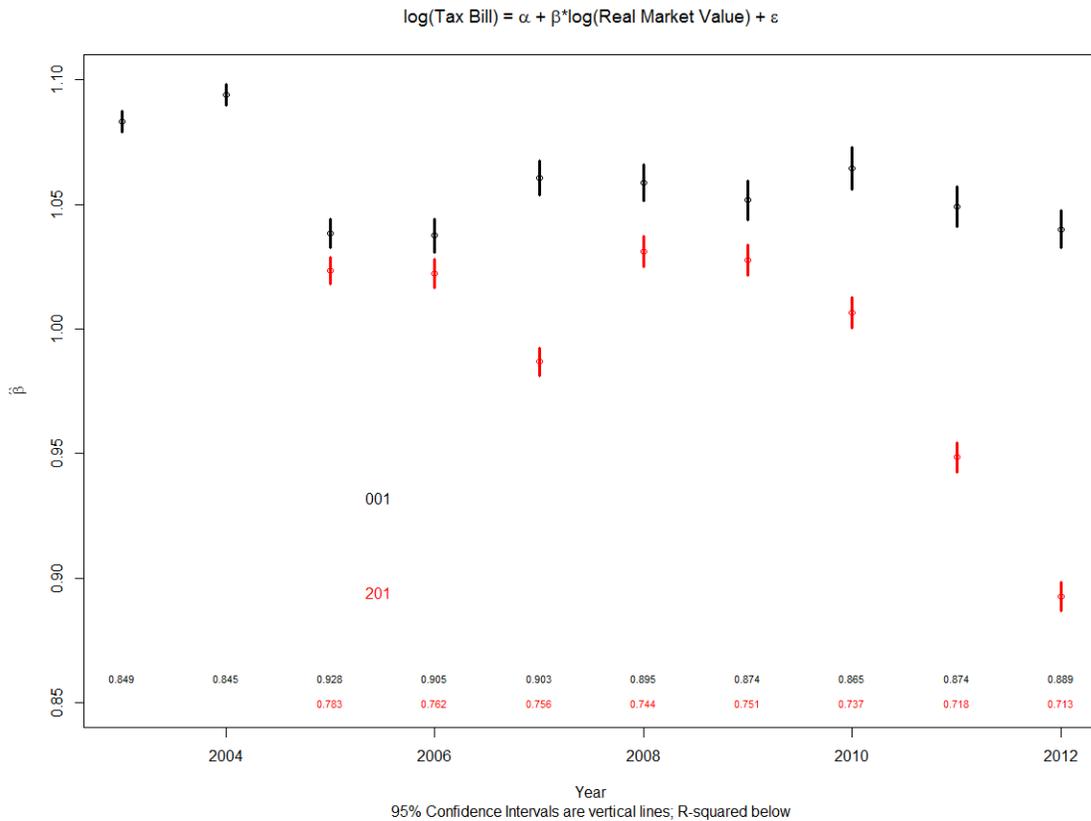


From Josh Harwood, Portland Municipal Economist, “Property Tax Compression Facts & Figures” June 14, 2012

Figure 6 summarizes the results of such an analysis for the City of Portland. The first two columns in the data field show results for all of the single-family residences in the City; the remaining columns show the results for the west side (black) and the east side (red) separately. We limited our analysis to Portland to avoid the confounding effects of jurisdictional variations in STRs. The Westside-eastside split was occasioned by the passage of a un-limited general obligation bond issue covering the west side of Portland, raising its STR relative to the rest of the city, but it proved convenient for analytical purposes.

The interpretation of these results is straightforward: the linkage between residential property tax payments and market values remains moderately strong, $R^2 = .71$ on the east side of Portland, $R^2 = .90$ on the west; Measure 50 AV limits have slowly, but steadily eroded the strength of this relationship, from an $R^2 = .78$ in 2005 to $R^2 = .71$ in 2012 on the east and from an $R^2 = .93$ in 2005 to $R^2 = .87$ in 2010 on the west; Measure 5 limits have mitigated some of the effects of assessment dispersion – in the west, as compression increased from 30 percent of households in 2010 to 70 percent in 2012, R^2 increased from .87 to .90. In the east, by contrast, where fewer single-family residences are subject to Measure 5 compression, the R^2 continued to drop, indicating increasing horizontal inequality. The elasticity of tax payments with respect to residential property value is evidently not biased against lower-valued homes. Only one in eight of the coefficients are less than one, although that may be due primarily to the effects of compression. The high coefficients shown in the first two columns are probably somewhat spurious because assessment ratios tend to be higher on the more affluent, upscale, west side of the river.

Figure 6



In the previous section we concluded that under Measure 50 limits, assessment quality is gradually, but steadily deteriorating. In Multnomah County the variance in assessment ratios is now as great as when Measure 5 was enacted. However, owing to intra-jurisdictional compression, horizontal inequities in effective tax rates are almost certainly less than they were at that time, although they too appear to be on the increase.

We would stress here that we have dealt with the equity issue in terms of the relationship between tax payments and market values of single-family residences, which is not how tax progressivity ought to be weighed. Normally, we want look at the relationship between tax payments of a given type, in this case all property tax payments, including pro-rata shares of taxes on industrial and commercial properties, relative to some measure of ability to pay, usually current income or a proxy for permanent income. We don't have that information: it is not directly available from the Survey of Consumer Finances or even IRS records.⁷ Nevertheless, we know that property wealth (industrial and commercial plus residential) is far more unequally distributed than current or permanent income (according to the Luxembourg wealth study, the GINI index for property wealth in the U.S. is greater than .75, while the after tax and transfer GINI index for current

⁷ Buchanan and Weber (1982) estimated a cross-sectional, income-elasticity of property-tax payments for Oregon of >2, ($2.58 = 5.32/2.06$) using countywide means. That would make it about as progressive as the current federal income tax system and more progressive than Oregon's personal-income-tax system – if true. It's probably not; indeed, the authors themselves do not highlight the finding. Besides, that was a long time ago, under a different property tax regime, although probably not a more progressive one than now.

income is about .35 [Jantti, Sierminska and Smeeding, 2008]; in Oregon 6 percent of taxpayers own >70 percent of the taxable property in the state); consequently it is almost certainly the case that, so long as the incidence of the property tax isn't shifted forward to consumers or back to factor suppliers (Zodrow, 2007), it is more progressive on average than most other taxes.

However, while wealth is itself a measure of ability to pay, it is not income. For the bottom 99 percent of American households, annual income predicts less than 30 percent of the variance in net wealth (Jantti, Sierminska and Smeeding, 2008). Toss some additional variables like age, education, and gender into the analysis and R^2 s can be boosted over 50 percent, but that's about it. The evidence is that net wealth probably proxies permanent income more accurately than annual income (Metcalf, 1994). For that reason, we have always been inclined to overlook the discrepancy between property wealth and current income, but one thing is sure: the discrepancy exists. Consequently, even if ARs were 1 and CDs zero, residential property tax payments would not be more covariant with ability to pay than they are now, given the patterns of bias we observe in the data. Low-income homeowners would still pay high residential property taxes; high-income renters would pay none.⁸

Our bottom line is that, so far as income-related bias (vertical intra-jurisdictional inequity) is concerned, the current property tax regime hasn't made things worse, in the sense that it hasn't on average significantly affected the progressivity of tax payments. The question of neighborhood bias is more interesting.

Gentrification

For the past fifteen years, home prices, rents, and median incomes have all increased faster on the less affluent east side of Portland than the more affluent west side. The City Club describes the redevelopment of the eastside as gentrification and associates it with, although they are careful not to attribute it to, Measure 50. Jenny Liu and Jeff Renfro (2014), analysts at Portland State University's Northwest Economic Research Center, explain the process through which Measure 5 could have encouraged gentrification: developers are attracted to an area by guaranteed low taxes, which in turn draws increasing numbers of newcomers, thereby displacing the relatively disadvantaged locals, who can no longer afford the cost of living in their home neighborhoods. A process they describe as a vicious cycle.

Clearly, the gross dynamics of property values in Portland underwent a sea change. Prior to Measure 50, property values were not only higher on the west side of the river they were also increasing faster. Following its enactment, this dynamic was reversed. During the 2002-2008 real-estate boom, property values grew slightly faster on the east side than on the west, fell less during the bust that followed, and recovered faster. Between 2004 and 2008, mean and median market values of single-family residences increased two

⁸ Not paying residential property taxes doesn't necessarily mean that very rich renters pay no property taxes, merely that, in most cases, they can reduce their total tax payments by incorporating their property holdings and, thereby, effectively rent from themselves, in which case they would pay commercial property taxes. This mechanism is also used to avoid the alternative minimum tax. At the other extreme, a significant proportion of lowest-income homeowners are retirees, who once earned substantially higher incomes, or wealthy individuals who have taken tax losses.

percent faster on the eastside than the West; between 2009 and 2012, the mean east-side residence lost only 11 percent of its value versus 19 percent on the west, while the median lost 10 percent versus 20 percent. As reported earlier, the gap between east-side and west-side ARs and, thereby, effective-tax rates has probably never been higher. Moreover, Liu and Renfro (2014) found that a one-percent difference in ARs increases home prices \$1000-\$2,000, after holding nearly everything else constant.

Consequently, we don't disagree with the City Club's intuition. For decades, Portland experienced increasing segregation by income class and race. Then, between the 2000 census and the 2010 census, this pattern dramatically reversed itself. For example, out of 29 census tracts in Portland, ten, all on the east side, were majority nonwhite in 2000. By 2010, none of the 29 tracts were. Overall, despite a 21.4 percent increase in the Black population of the greater Portland region (twice the growth of Portland overall), it was less concentrated at the end of the decade than the beginning. Frankly, this looks to us more like a virtuous than a vicious cycle. However, for this essay, the critical question is whether Measure 50's assessment caps caused this cycle, virtuous or not. The evidence at 10,000 feet suggests that it may have, but it is hardly conclusive. Besides, as the City Club correctly observed, the direction of causation could go either way. This issue requires a much more careful look (an observation made by Buchanan and Weber [1982] over thirty years ago).⁹

Proliferation of Tax Jurisdictions and Fuzzed Accountability

This indictment of Oregon's tax regime has two elements: some "voters can support new taxes without increasing their tax bills," shifting some of the cost to residents who will not benefit from the services the tax supports, and the regime has "induce[d] a confusing, uncoordinated proliferation of tax jurisdictions." The first indictment may have some merit, the second almost none.

The counterfactual employed by the City Club in drawing up this indictment presumes both a levy-based property tax system, with a CD of zero, and perfect capitalization of both services and taxes. Consequently, a measure will be approved only if its benefits exceed its costs and, furthermore, the beneficiaries of the service pay its full cost (indeed, any new service that produced capitalized benefits in excess of costs ought to be unanimously approved). Clearly, those assumptions are unrealistic (e.g., perfect capitalization), as are some of their implications (e.g., renters are indifferent to service provision levels, as well as property taxes), but it might be instructive to see how they play out under the existing property tax regime.

Under the current property tax regime, there are two kinds of property owners, those whose properties are in compression and those whose are not. The former pay a higher tax only if they would get a net-benefit from the service – that is the sole circumstance in which their RMV would increase. If they do not obtain a net benefit, they should be just

⁹ There is a second reason for taking a sharp look at this issue: it may have a direct bearing on one of the more important theoretical questions in the property tax literature, whether the property tax affects the distribution of capital resources within a region (i.e., the benefit vs. capital charge debate, see Zodrow, 2007). Conclusive evidence on this theoretical question would also help decide the debate over the merits of a land tax.

like renters, indifferent. Property owners not subject to compression pay the full tax increase, whether they benefit from the service or no. Both the tax and the service would be capitalized in RMV, but would not thereby affect tax bills, producing net winners and losers under this system. Consequently, given the City Club's assumptions, the outcome under Oregon's current property tax regime, which produces winners and losers and where the former must outnumber the latter for a measure to succeed, could easily be different from that which would obtain under their counterfactual.

We are inclined to think that the bad thing about the current system is that it leads to the rejection of some, perhaps many, proposals that would produce net benefits. But it is possible that it can also result in the approval of measures that would be rejected under the City Club's counterfactual. In any case, the tax regime affects these outcomes. For example, the library-bond measure, which passed on the west side of Portland but not on the east, requiring us to analyze the two areas separately, may have done so because of compression. Of course, it is also possible that the folks who live on the west side of the Willamette River value public libraries more on average than their eastside counterparts.

The City Club also mistakenly believes that under the current property tax regime costs can be shifted to other overlapping jurisdictions. They can't. The City Club appears to be equally mistaken about the proliferation of tax jurisdictions. According to the 2000 census of governments there were 1,494 tax jurisdictions in Oregon; in 2010 1,512 (Pierson, Hand, Thompson, 2014). Had Oregon's jurisdictions increased at the same rate as in the rest of the U.S., there would have been 1,509. An increase of 0.15 percent in ten years is hardly proliferation.

On the other hand, had the City Club framed this issue in terms of the proliferation of intra-jurisdictional tax districts (so called "neighborhood improvement measures," such as the Westside library bond, and development districts), it might well have been correct. Again, this is a topic that deserves a closer look.

Conclusions

Is Oregon's property-tax regime a Frankentax? Weighed against the City Club's counterfactual, perhaps. But relative to the property-tax regime that was actually in effect prior to the enactment of Measures 5 and 50, it doesn't look so bad. It has definitely not increased the tax burden on homeowners, especially those with low-incomes, as claimed by the City Club.

We are particularly mindful of the benefits of Measure 50 (see Shiffren, 1998). Reliance on M50AV has gone a long way toward stabilizing individual tax bills and local revenue. Given the real-estate boom and bust of last decade and the dislocations it has caused elsewhere, the significance of this accomplishment should not be discounted. Moreover, the three-percent growth factor recommended by the Legislative Fiscal Office and adopted by Measure 50 looks to be reasonably consistent with the long-term trend in the growth of the state's per-household property wealth. Consequently, it offers a good basis for local-government fiscal planning (Dothan and Thompson, 2009). At the same time, we note that Measure 5 compression has substantially mitigated the worst horizontal inequalities in effective taxes that would have otherwise resulted from deteriorating assessment quality (increases in CDs) caused by Measure 50 and has provided a powerful

incentive to maintain the accuracy and currency of RMV. These are good things.

On the bad side, there is one important offset. While our analyses of the elasticity of tax bills with respect to changes in property values and of assessment quality suggest that the short-term costs of stability have been fairly low, there is no doubt that assessment quality is slowly but inexorably deteriorating. This is also something that can and should be fixed.

Furthermore, there are things about Oregon's existing property tax regime that we don't like, which are not reflected in our assessment. For example, like the City Club, we too are troubled by the transfer of fiscal autonomy from local school districts to the state (Fischel, 2001; see also Thompson and Rizova, 2013), but, evidently, that is precisely what the state's taxpayers wanted. Insuring equal student funding, while preserving local autonomy, is about as practicable as building a perpetual motion machine. Much the same thing can be said about the regime's effects on the provision of general-government services. Here too, we share the City Club's concerns.

However, we would point out that the most severe local service shortfalls have occurred in jurisdictions with general-government STRs below one percent. State mandated lock-in of general-government STRs was justified by compression-driven cannibalization of inter-jurisdictional tax bases, but it applies equally to all jurisdictions, whether they are in compression or not. That hardly makes sense. Indeed, rather than freezing STRs, requiring the approval of any affected jurisdiction to increase local rates would on the face of it constitute a more reasonable fail-safe mechanism. If none of a jurisdiction's neighbors are affected by a tax increase or a satisfactory arrangement can be worked out amongst them, the jurisdiction ought to be free to raise rates consistent with the levies its citizens have authorized. Moreover, this is a change to Oregon's property tax laws that could be made by the legislature, without automatically invoking a statewide referendum.

Lastly, we would note that any serious evaluation of Oregon's current property tax regime should reflect a better, more complete understanding of the effect of Measure 50 on the economic development of the state and especially on intra-jurisdictional patterns of development, together with the part played by neighborhood-improvement and economic-development districts in determining those outcomes. In Portland, Measure 50 appears to have promoted a more balanced, more equal pattern of development. Is this merely an idiosyncrasy of the place and time, or does it reflect something more fundamental?

With respect to restoring assessment quality, the League of Oregon Cities proposed during the last legislative session a constitutional amendment that would "reset" a property's TAV to RMV when it was sold. Reset looks like a reasonable solution to the problem of deteriorating assessment quality, although it might be more reasonable to reset the TAV using the county's mean assessment ratio as is done with new construction, which would tend to improve tax uniformity (Mikesell, 1980). Moreover, from what we know about residential mobility, the folks who are most likely to stay put are the ones we want most to protect against rapid, unanticipated increases in their tax bills: senior citizens without mortgages. They are the most important beneficiaries of Measure 50. Shifting to a system of reassessment at title transfer would preserve that protection. In any case, given the high proportion of properties now in compression and

the more general increase in the M50AV/RMV ratios over the past five years, this seems like a politically opportune time for political action leading to the enactment of reassessment on title transfer.

How well would this work? Probably reasonably well, given what happens to tax rates where high levels of intra-jurisdictional compression obtain. Assessment quality is deteriorating at the rate of about one percent per annum; real estate turnover is about eight percent. Consequently our guess is that reset at transfer would take us to a stable CD of less than 10 percent and R^2 s between RMV and tax payments of 90 percent or better. But there is ultimately no reason to guess. We can simulate the effects of reassessing TAV to RMV on title transfer. We have information on every residential sale that took place in Portland between 2009 and the end of 2012. What we must do is match that data to our residential tax data and compute the consequent effects of reassessment on the mean and variance of overall and neighborhood assessment ratios (TAV/RMV). That is the next step we plan to take

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