

MARKET VALUE:

HOW FAIR ASSESSMENT OF
CALIFORNIA'S COMMERCIAL
PROPERTY VALUES WOULD
LIKELY AFFECT LAND USE,
URBAN DEVELOPMENT AND
THE ECONOMY

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EXECUTIVE SUMMARY

When voters passed Proposition 13 in 1978, they saw it as a way of limiting rapidly rising taxes on residential properties, an understandable sentiment in the face of increasing housing prices dramatically outpacing income growth. Yet Proposition 13 also contained an additional provision with largely unintended consequences. By treating commercial property in exactly the same way as residential property, Proposition 13 has led to a substantial under-assessment of commercial property values. Researchers at the University of Southern California have estimated that if this tax benefit were closed and commercial properties were taxed at their market value, it would result in \$11.4 billion in additional revenue per year—revenue that would go to support schools, community colleges, and vital community services provided by cities, counties and other local government entities. This tax provision primarily benefits big corporations, large-scale real estate investors, and other large-scale long-time land holders in the state. Almost 80% of the \$11.4 billion in lost revenue comes from only 8% of properties, which are valued at more than \$5 million each, while half of all commercial properties are already assessed at fair or near fair market value (Ito, Scoggins, and Pastor 2015, 2017).

Reforming our property tax system to assess commercial properties at their market value would provide a more equitable tax structure for businesses, while raising additional revenue for essential state services. But what would be the overall economic impact of such a reform? To what extent would increasing property taxes for large land owners hurt the California economy, resulting in lost jobs and economic output? To what extent would it improve economic performance and promote more efficient land use and urban development?

The purpose of this study is to help assess the likely impact of reforming California's commercial property tax structure to tax commercial properties at their market value. In our analysis, we assume that agricultural land is exempted from reform, and that existing protections for all residential property, including multi-family units, remain in place.¹

We find the following:

- The overall scale of increased annual costs to owners of commercial property—an estimated \$11.4 billion—represents less than one half of one percent of the overall California economy. Thus, while the benefit for local government finances and funding for schools could be significant, the overall impact on the economy and jobs is likely to be small.
- The financial impacts of reform would be primarily born by a small number of very large land and building owners with under-assessed properties. Businesses with increased property tax costs have essentially three options for adjusting: absorb the costs themselves; find ways of generating more revenue from use of their land; or pass on these increased costs to their customers. While a small portion of the total costs might be passed on to consumers, we believe that a substantial portion of the increased costs will either be absorbed by these large land-owners themselves or result in changing land-use patterns with associated new revenue generation opportunities for land owners.
 - Many large commercial land-owners lease their properties to other businesses. Large owners with under-assessed properties who lease out their property would likely have to absorb a large portion of the additional costs themselves. Some commercial property owners use net leases, in which increased property tax costs are passed on to the leasee as part of the lease agreement, but in the long-term, even these property owners would likely absorb most of the additional tax costs. This is because lease rates are largely set by market conditions, not tax rates, and taxing commercial properties at market rates would simply level the playing field for all land-owners, rather than artificially benefitting those companies with under-assessed values. Thus, businesses who lease rather than own their

¹ This is consistent with the proposed statewide initiative titled The California Schools and Local Communities Funding Act of 2018.

premises are unlikely to experience large impacts on their lease costs as a result of fair market assessments. This is especially valuable for new businesses, who tend to lease their primary premises more than older businesses. While there is no reliable data for all firms on whether they rent or own their primary premise, some evidence comes from a Kaufmann Foundation national survey of new businesses, which found that 6 years after starting, nearly 88% either rented their primary premises or operated out of a residence, such as a home or garage.

- Assessing commercial land at its actual value would provide an incentive for companies to develop vacant land and make better use of under-utilized land. This would provide a stimulus to urban development, increase the supply of available land, and likely incentivize denser urban development patterns. For example, in our statewide analysis, vacant properties that had valuations closer to market value—that is had tax base year from 2009-11—were five times more likely to be developed by 2016 than properties whose tax base year was in the 1970s and early 1980s.
- Small businesses that have owned their primary premises for an extended period of time would have the most difficult time adjusting to being taxed at market-rate property values, and would be more likely to pass those costs on to consumers. The reform proposal currently making its way through the initiative process, however, limits this impact and mitigates it substantially in two ways. First, business owners who operate their own business on land they own are exempt from reassessment if all land they own is worth less than two million dollars. Second, it reduces business personal property tax on equipment and fixtures, by exempting \$500,000 of that property from taxation for all businesses, and eliminating the tax entirely for small businesses with 50 or fewer employees.²
- Assessing commercial land at its actual value would likely have a beneficial impact on infrastructure development. It would allow cities to more accurately capture increasing land value from investment in infrastructure. This could also help shift funding of infrastructure away from more regressive sources such as sales taxes.
- Assessing commercial land at its actual value would also likely reduce distortions associated with the myriad ways cities have made up for revenue loss associated with limits on property tax. The increase since 1978 in cities' dependence on sales tax, lodging taxes, utility taxes and development fees has resulted in problematic incentives that has likely contributed to sprawl and inefficient land use.
- Shifting more revenue to commercial property tax would likely contribute to more efficient land use and development planning, and denser urban development overall. This could have environmental benefits as well as economic.
- The additional revenue for local government would go to education and public services, and likely also to increased spending on needed infrastructure, all of which have positive economic impacts.

In sum, the costs of reforming California's property tax system to tax commercial properties at their fair market value would be concentrated on a minority of businesses that are mostly large, long-time major land owners who have benefited for many years from low assessed tax values. Given the other potential economic benefits outlined above, our central conclusion is that taxing commercial property tax at market value would likely have a modest positive impact on land use, urban development and the economy overall, along with significant increases in funding for education, public services, infrastructure and other local government expenditures.

2 See The California Schools and Local Communities Funding Act of 2018.

INTRODUCTION

When voters passed Proposition 13 in 1978 they saw it as a way of limiting rapidly rising taxes on residential properties, an understandable sentiment in the face of increasing housing prices dramatically outpacing household income growth. Yet Proposition 13 also contained an additional provision with largely unintended consequences. By treating commercial property in exactly the same way as residential property, Proposition 13 has led to a substantial under-assessment of commercial property values. Researchers at the University of Southern California have estimated that if this tax benefit were closed and commercial properties were taxed at their market value, it would result in \$11.4 billion in additional revenue per year—revenue that would go to support schools, community colleges, and vital community services provided by cities, counties and other local government entities. This tax provision primarily benefits big corporations, large-scale real estate investors, and other large-scale long-time land holders in the state. Almost 80% of the \$11.4 billion in lost revenue comes from only 8% of properties, which are valued at more than \$5 million each, while half of all commercial properties are already assessed at fair or near fair market value (Ito, Scoggins, and Pastor 2015, 2017).

Reforming commercial property tax to assess commercial properties at their market value would provide a more equitable tax structure for businesses, while raising additional revenue for essential state services. But what would be the overall economic impact of such a reform? To what extent would increasing property taxes for large land owners hurt the California economy, resulting in lost jobs and economic output? To what extent would it improve economic performance and promote more efficient land use and urban development? The purpose of this study is to help assess the likely impact of reforming California's commercial property tax structure by taxing commercial properties at their market value.

Our central conclusion is that such a reform would likely have a modest positive impact. Assessing the scale of such an impact is difficult and would require more in-depth research, including conducting complex modeling, which is beyond the scope of this paper. What is clear, however, is that the concerns about major job loss associated with commercial property tax reform proposals are not supported by meaningful research.

On the other side, it is clear that under-assessment of commercial property values has a clear and large drag on development of vacant lots. In addition, the fiscal structures of California cities, with an under-reliance on property tax, likely distorts land markets in ways that undermine investment in infrastructure and incentivizes growth in retail and accommodation industries, which typically have quite low wages and lower multiplier effects than other industries. Reforming commercial property tax would thus likely improve the efficiency of commercial and industrial property markets and stimulate economic growth.

This report begins by first reviewing the claims that increased commercial property tax would lead to large scale job loss. We then turn to a general discussion about the economic impacts of property tax as compared with other types of taxes. We then provide new empirical evidence in four broad areas: an analysis of the relationship between under-valued properties and vacant land development; a review of infrastructure spending and the relationship to underassessment of property; an analysis of the relationship between different industry sectors and under-assessed property; and finally an analysis of the fiscal structure of California cities and its relationship to economic incentives associated with undervalued properties. We conclude with a summary of the implications of these findings for commercial property tax reform: that assessing commercial properties based on their actual market values would likely add net positive value to the structure and dynamics of the California economy.

COMMERCIAL PROPERTY TAX AND THE ECONOMY

The relationship between commercial property taxes and the economy are complex, but fears that reform will lead to large scale economic impacts or job loss are not supported by the research.

How would reforming commercial property tax affect the economy of California? There has been surprisingly little research on this question. The vast majority of research on the impacts of Proposition 13 have focused on the fiscal impacts for local government and schools. Overall, as a result of Proposition 13's limits on property tax assessment, California relies less on property tax than most states (Auerbach 2010; Chapple 2016). The resulting reliance on personal income tax, sales and use taxes, and capital gains tax results in greater fiscal volatility (Citrin 2009; Gamage 2010). This fiscal structure at a local level also has indirect economic impacts, especially as it relates to land use decisions, which are examined in more detail below.

Low property tax levels are sometimes seen as beneficial for economic growth, and there have been a number of comparative studies that look at the relationship between property tax levels and state economic growth. These studies find somewhat mixed results. Some studies find that higher property tax can have slight negative impacts on macro-economic growth (Yamarik 2000; Phillips and Goss 1995; Segura 2017). Others find no impact or a slight positive effect, which depends in part not just on the level of property tax but its relationship with other sources of revenue (Helms 1985; Stallmann and Deller 2010; Adkisson and Mohammed 2014; Gale, Krupkin, and Rueben 2015). The impact also depends largely on what the resulting revenue is spent on, with investments in infrastructure, education, and other critical public services able to more than counterbalance any negative impact (Helms 1985; Brown, Hayes, and Taylor 2003).

A recent literature review on local tax limitations like Proposition 13, which as of 2015 existed in some form in 28 states (NASBO 2015, 61), found three broad arguments for why they are sometimes seen as a means to foster economic growth (Stallmann et al. 2017). One strand simply argues that, while taxes play a very small role in business location activity and hence economic performance, policymakers remain convinced that high taxes are detrimental to economic growth (Conroy, Deller, and Tsvetkova 2016). A second strand tends to talk in broader terms about the ways that tax limitations signal a positive business climate (Deller 2014). A third strand talks more about perceptions of waste and inefficiencies (Fraser 2005). But this review also found that strong counter arguments existed to all three of these strands, finding that tax limitations are just as likely to contribute to government inefficiencies and distortions (Mullins 2004) and that many of the perspectives are related to outdated 'first wave' local economic development policies (Goetz, Deller, and Harris 2009).

Specific to California, one of the more prominent recent studies of the economic impact of Proposition 13 on economic development is a study looking at a proposed split roll reform, conducted by researchers at the Davenport Institute at Pepperdine University's School of Public Policy (Frates and Shires 2012). The authors' estimate that taxing commercial property at market value rather than the property's assessed value would increase property tax by roughly \$6 billion (in 2012), would result in a loss to the California economy of nearly \$72 billion in lost output, and would cost nearly 400,000 jobs. They also argue it would hurt overall business climate, particularly conditions for small business.

Because these findings echo many public concerns about job losses associated with tax increases, it is worth reviewing these findings in depth. There are technical and theoretical flaws in this study which suggest caution at best in using it as basis for public policy analysis. While they develop a reasonable estimate of the total increase in property tax revenue, their estimates of total costs to the California economy are based on an input-output analysis of private sector job loss that is technically flawed.

Furthermore, their report makes no effort to estimate economic gains from increased public-sector investment, misleadingly portrays the scale of the impact, and fails to examine how any of the ways that the economy might be impacted by the *structure*, not just the amount, of the commercial property tax, which can affect land markets and local government fiscal incentives.

The technical flaws in their input-output methodology are three-fold. First, they treat an increase in taxes as the equivalent of net lost revenue. But in input-output models, taxes are treated as a portion of 'value-added', along with employee labor costs and business profit, and an increase in taxes can't be simply treated as a net loss in revenue without further consideration of the multiple ways in which that increased cost might be absorbed (Berck, Golan, and Smith 1997; Miller and Blair 2009).³

This leads to the second flaw, which is a failure to analyze the three basic ways such an increased tax cost might be absorbed—through lower profits, increased efficiencies, or increased prices being passed on to the customer. In economic theory and practice, it is typically some combination of these three, which will vary tremendously by industry and individual business (Hirsch, Kaufman, and Zelenska 2015). In the case of property tax, a substantial portion of businesses—those that rent rather than own their premises—would see little cost increase while the property owners would have to absorb a substantial portion of the costs in the form of lower profits rather than increased rents. Some commercial property owners use net leases, in which increased property tax costs are passed on to the leasee as part of the lease agreement, but in the long-term, even these property owners would likely absorb most of the additional tax costs. This is because commercial rents—like all rents—are largely shaped not just by underlying costs of production, but rather by the level of demand for the particular supply and location of the product being offered (Geltner et al. 2001). Indeed a number of studies have found no relationship between differential commercial property tax rates and gross rents (Clapp 1980; Wheaton 1984). Each plot of land comes with unique locational characteristics and the supply of land at each location is fixed, so greater demand in the short term simply results in higher rental prices, regardless of the tax level (DiPasquale and Wheaton 1996). In the long-run, increased demand can contribute to new property developments and densification, but supply is notoriously inelastic, given both the long time for new buildings to be built, and on the other side, the difficulty in reducing office space if demand falls. Given these demand-supply dynamics, property owners with under-assessed properties would simply have their excess profits reduced to the same level as if their properties were assessed at actual market rates, like all their competitors with fair market assessments. Furthermore, any property-owning business that pays a higher tax can deduct this expense from their Federal Corporate Income Tax, further reducing the portion of increased cost that would be passed on to consumers.

In addition, assessing land at actual market values is likely in many cases to result in greater efficiencies in the use of land rather than simply increased prices with the current use. Imagine, for example, the case of a surface level parking lot on an under-assessed plot of land in a major urban center—something that exists in all major cities in the state. Assessing this property at market rates would create significant incentive to create a multi-level parking garage or convert land to other types of businesses in greater need of dense urban locations. The key point is that there are multiple ways that businesses can and would adapt to taxing properties at market rates, and some of those ways of adapting would actually be economically more efficient and beneficial.

³ An example of their faulty reasoning is on page 13: "A direct effect is the explicit...decrease in net revenues associated [with] spending \$6 billion more in aggregate property taxes. This results in lower net revenues....[and] these businesses have less income..." (emphasis added). In fact, in income-outcome models, an increase in taxes could just as easily result in a decrease in profit or a decrease in spending on employee salaries, as a net decrease in revenue.

Finally, a third major technical flaw in their analysis is that they only looked at private sector impacts, without looking at how an increase in public sector revenue might offset losses in the private sector. The increased costs to businesses can't simply be subtracted out of the input-output analysis, as if this money simply disappears. It has to be added as increased revenue to the public sector. Increased public sector revenue would have direct, indirect and induced changes in public sector employment, and in the private sector goods and services that the public-sector purchases. This can easily be modeled in IMPLAN's input-output model⁴, yet there is no indication that they included this in their analysis.

These technical flaws in their analysis mean that their estimates of the scale of lost output and job loss are inaccurate and unreliable.

In addition to these more foundational issues, their language is also somewhat misleading in their presentation of the scale of impact of their estimates. While \$6 billion seems like a large amount of money, on the scale of the California economy, it is actually quite small. In 2009 (the year of their data analysis), the California economy was \$1.9 trillion. Thus, \$6 billion represents only one-third of one percent of the final sale value of all goods and services in the state economy. Even if the entire increase in property tax were passed on to consumers, which is extremely unlikely given the reasons mentioned above, consumers would be unlikely to notice the price increase, especially if this one-time large adjustment were phased in over multiple years. Further, while their estimate of revenue loss of \$6 billion is only for one year, their estimate of lost output and lost jobs (\$71.8 billion and 396,345) is over five years. While they do indicate the estimates of lost output and jobs are over five years, by presenting data on different time-frames, it presents a misleading picture of the scale of impact of the tax increase that goes even beyond their overestimation. It is also worth noting that their calculations include estimated costs in agriculture, but current proposals for property tax reform specifically exempt agriculturally zoned land.

Finally, in their analysis they make no attempt to look at the actual structure of property taxes. Taxes of any type have significant market impacts, and the structure of those taxes makes a big difference in terms of the price signals it sends to business and consumers, and the impact they have on supply and demand. The structure of property taxes is particularly important to examine in detail because land has unique characteristics. Most importantly, land is a fixed commodity (the overall quantity of land is fixed, and the only thing that can shift is what the land is used for). This characteristic makes it the preferred tax of many economists, for reasons that are explained below. Furthermore, the value of the land is shaped dramatically not just by the characteristics and use of the land itself, but by the characteristics and use of surrounding land. This means cities, with their control over land use zoning, have particular influence on the value of land, and incentives built into the structure of the tax system related to different kinds of land use can have substantial economic implications. Thus, any serious attempt to examine the impact of property tax reform needs to take the impact on local government finances and fiscal incentives seriously.

In order to more seriously assess the potential impact of commercial property tax reform on California's economy, we turn first to a general discussion about property tax, before then turning to a more empirical analysis of how the structure of commercial property tax in California affects land use, infrastructure, fiscal structures of cities, and broader economic dynamics, which should all be critical dimensions of assessing commercial property tax reform policies.

4 The disaggregation of local sector spending is broken down into education, non-education (including parks & recreation, health, hospitals, police, judicial and legal, financial administrative, highways, public welfare, fire protection, natural resources, corrections, libraries, social insurance) and investment. See <https://implanhelp.zendesk.com/hc/en-us/articles/115009713228-Working-with-Government-Institution-Spending-Patterns>

PROPERTY TAX: A GOOD TAX

When implemented fairly, property taxes can be a particularly economically efficient and stable source of local revenue.

The structure of taxes creates economic incentives that shape behavior in different ways. A tax on cigarettes, for example, is designed to reduce cigarette smoking while tax deductions for corporate research and development expenditures is designed to incentivize scientific and technological innovation. Much of the literature on the relationship between tax structure and economic growth has been concerned with the balance between taxation on labor income, capital or corporate income, and expenditure (e.g. sales tax) (J. M. Arnold et al. 2011). Within the economics discipline, there has been a long-standing debate about whether property taxes are best understood as a tax on capital, or whether, since it is typically so directly linked with the provision of local public services, it is better understood as a user charge in return for the increased value of land associated with those public services received (Zodrow 2006). Both sides, however, typically agree in considering property tax to be a relatively good form of taxation. This is true in part because, since property is immovable, it makes it more difficult to evade. But more importantly from an economic viewpoint, a tax on land distorts the allocation of resources less than other taxes (Slack and Bird 2014). Since the amount of land is fixed, property taxes do not affect the decision to supply labor, invest in human capital, produce, invest and innovate as much as do other taxes. Studies across OECD countries rank recurrent taxes on immovable property as superior for economic growth, when compared with consumption taxes, personal income tax or corporate taxes (J. Arnold 2008; Johansson et al. 2008).

A tax on property requires it to be put to productive use. This provides an incentive to businesses to make investments in productive capacity (capital, labor, new technologies) within their existing property, to thus effectively lower the relative tax costs of doing business. It also provides a mechanism for land to be put to the 'best and highest use', since less productive uses of property will be outbid by more productive uses (Youngman 2016). Local property taxes also promote greater accountability due to the more direct connection between services provided at a local level (schools, roads, transit, parks) and property values. Property values tend to increase relative to the infrastructure and public services provided, and public sector decisions will tend to be more efficient because taxpayers will presumably support those activities for which the benefits of that investment received significantly exceed the associated taxes (Fischel 2001).

The economic benefits of property tax are even more pronounced when a higher tax rate is placed on the value of land as distinct from the value of improvements on the land. The portion of the property tax that falls on structures or other improvements provides a discouragement to investment and promotes urban sprawl, while the tax on land, which is in fixed supply, raises revenue without distorting incentives for owners to invest in their land (Mathis and Zech 1982; Wenzer 2016; McCluskey and Franzsen 2017). At least 30 countries have implemented a full land value tax, and within the U.S. at least 16 cities and two school districts in Pennsylvania have adopted higher land tax rates than improvement tax rates (Dye and England 2010). The city of Altoona adopted a 100% property tax on land and 0% on buildings, which was phased in fully by 2011, in an effort to promote a more economically diverse and stable city (Speirs 2011). Empirical evidence shows that the differential rates on land and improvement has led to greater capital intensity and generally increased land values and economic activity (Yang 2017, 2014; Plassmann and Tideman 2000; Vincent 2012).

One of the seemingly peculiar features of a tax on land is that, in many ways, it can actually increase the effective supply of land. It most clearly does that by providing an incentive to bring vacant land into active use. It also does this by providing a positive feedback loop, as vacant land brought into new

activity, or higher and more efficient use of land, increases the value of neighboring land and increases public motive to spend more on infrastructure and services to further increase the value of land (Gaffney 1972; Harrison 2006).

The under-assessment of commercial property values in California undermines these beneficial aspects of the property tax.

Under-assessment of commercial property values also potentially distorts local government decision-making processes. Land value is determined by a number of factors, including factors generally beyond the influence of public financing, such as population growth, general economic development, and private investment. But land value is also determined by public investment in such things as infrastructure and social services, as well as changes in land use regulations and zoning (Ingram and Hong 2012). Restrictions in the inability of local authorities to capture increased value from these investments is likely to lead to under-investment. In California, one of the other features of the under-assessment of property values is that much of the distortion in assessed value accrues disproportionately to land rather than improvements. Current estimates are that 60% of the revenue gain from assessing commercial property at current market rates would come from taxing land, rather than structures (Stark 2016).

PROPERTY VALUE ASSESSMENT AND LAND USE

Under-assessing commercial land value for tax purposes has contributed to inefficient land use in the state and reduces incentives for vacant land development.

The most direct way that a reform in commercial property assessment is likely to affect the economy is related to the way it shapes the use of land. Taxes on property are one of the factors shaping land and property markets. Assessing all commercial property fairly will remove certain distortions in the land and property markets, and thus shift some incentives for how land is used in the state and its impact on patterns of economic growth and development. In what follows we look at three critical factors of the relationship between property tax and land use: development of vacant land; impacts of infrastructure investments (particularly transportation); and differential sectoral impacts. The central conclusion of this analysis is that under-assessing land for tax purposes has contributed to inefficient land use in the state.

INCENTIVIZING VACANT LOT DEVELOPMENT

The most obvious way that under-assessed property can distort land markets is by providing an incentive for land owners not to develop vacant or otherwise under-utilized land. Why is this? Land owners face complex factors in trying to decide whether to develop vacant land, including possibly delaying development until real estate markets are stronger or otherwise searching for optimal development opportunities. Yet they also incur some costs--notably property taxes--of holding on to undeveloped land. Thus, property owners whose property taxes are low due to assessments that are below market value are less likely to develop than owners who have similar land they've owned a shorter period of time and thus is taxed closer to market value.

In a recent analysis, the Legislative Analyst's Office finds evidence to support this argument. Looking at vacant lots in three large counties (Los Angeles, Sacramento and San Mateo), they find that properties owned only five to ten years were close to four times more likely to be developed than properties owned for 20 to 25 years (Taylor 2016, 34). Even when examining differences in development patterns for adjacent vacant lots, to try to distinguish any effects that may be caused by long-held vacant lots that are in less desirable areas, they find a similar effect that gets stronger the longer property is owned (and thus the greater gap between market and assessed values). A property that has been owned 1 to 5 years longer is 25 percent less likely to be developed than neighboring vacant lots, while properties owned 20 to 25 years longer are 69 percent less likely to be developed (Taylor 2016, 35).

While this evidence is compelling, there are three factors that might limit the strength of conclusions drawn from it. First, as they suggest themselves, one factor driving the findings might be that many properties that have sold more recently were likely purchased by buyers whose intent was to develop in the near future, which "probably accounts for the much higher likelihood of development for properties owned for three years or less" (Taylor 2016, 34). Second, they include in their analysis both commercial and residential properties, which is less useful for an analysis of economic development where commercial properties are the primary concern. Third, they only look at three large counties and though these counties represent three distinct areas of the state (Southern California, Bay Area, and Sacramento), perhaps dynamics are different in other parts of the state.

Thus, for our analysis we tried to do a more in-depth and rigorous study of patterns of commercially-zoned vacant land. We used a state-wide database of all land parcels, compiled by CoreLogic and further developed and analyzed by the Program for Environmental and Regional Equity at the University of Southern California. The database includes zoning classification, assessed land value and improvement value, and tax base year (data of land sale), with information up to 2016. We selected all commercially zoned lots in the state, allowing us to look just at commercial properties and to examine dynamics in different areas of the state. In order to eliminate the inherent bias of more recently purchased lots, we excluded from our analysis all properties that were developed within three years of being purchased. Our analysis included 352,970 vacant lots that were vacant in 2011 and that we had information on whether they were developed or still vacant in 2016.⁵

As shown in Figure 1, our analysis shows a clear pattern, which confirms and reinforces the findings of the LAO, with a specific focus on commercial vacant lots. Those commercial properties that have been owned a longer time, and thus have a much lower assessed value compared to market value, are significantly less likely to be developed. Nearly 2.5% of all vacant properties that had a tax base year from 2009-11 were developed by 2016, five times the rate of properties whose tax base year was in the 1970s and early 1980s. The pattern of vacant lots with older assessment dates being developed less frequently holds in urban regions throughout the states, though the overall development rates differ. As shown in Figure 2, for all metropolitan counties across the state, 2.4% of vacant lots that had a tax base year from 2009-11 were developed by 2016, compared to only 0.5% of vacant lots that had a tax base year of 1975. In the Los Angeles region, development rates were lower overall than the average for all metro areas, but the pattern is the same, with vacant lots with recent tax base years 7 times more likely to be developed than properties whose tax base was 1975, prior to the passage of Proposition 13. In the Bay Area, while overall development rates are higher, the pattern of older tax base year properties being less likely to be developed still holds. Of all vacant lots with a tax base year of 1993 or earlier, only 1.3% were developed by 2016, while 6.2% of vacant lots with a tax base year of 2009-11 were developed by 2016. Since Bay Area property prices started accelerating dramatically in the mid-1990s, this provides further strong evidence that under-assessed property contributes a drag on new development.

⁵ Note that parcels could have been developed in any of the intervening years from 2011 to 2016, but would be included in our analysis only if they had been owned at least 3 years before being developed. In other words, a lot sold in 2011 would have to have been developed in 2014 or later to be included in the analysis.

These findings suggest that assessing property at current market rates could provide a substantial boost to development of vacant lots. Of course, there are a variety of factors shaping decisions to develop vacant lots, and there may be other reasons why longer held properties are less attractive for development, but taxing property at fair market values would provide an incentive to open up substantial amounts of urban land for further development, thus promoting more efficient use of urban land and decreasing pressures for sprawling developments on the urban periphery.

Figure 1:

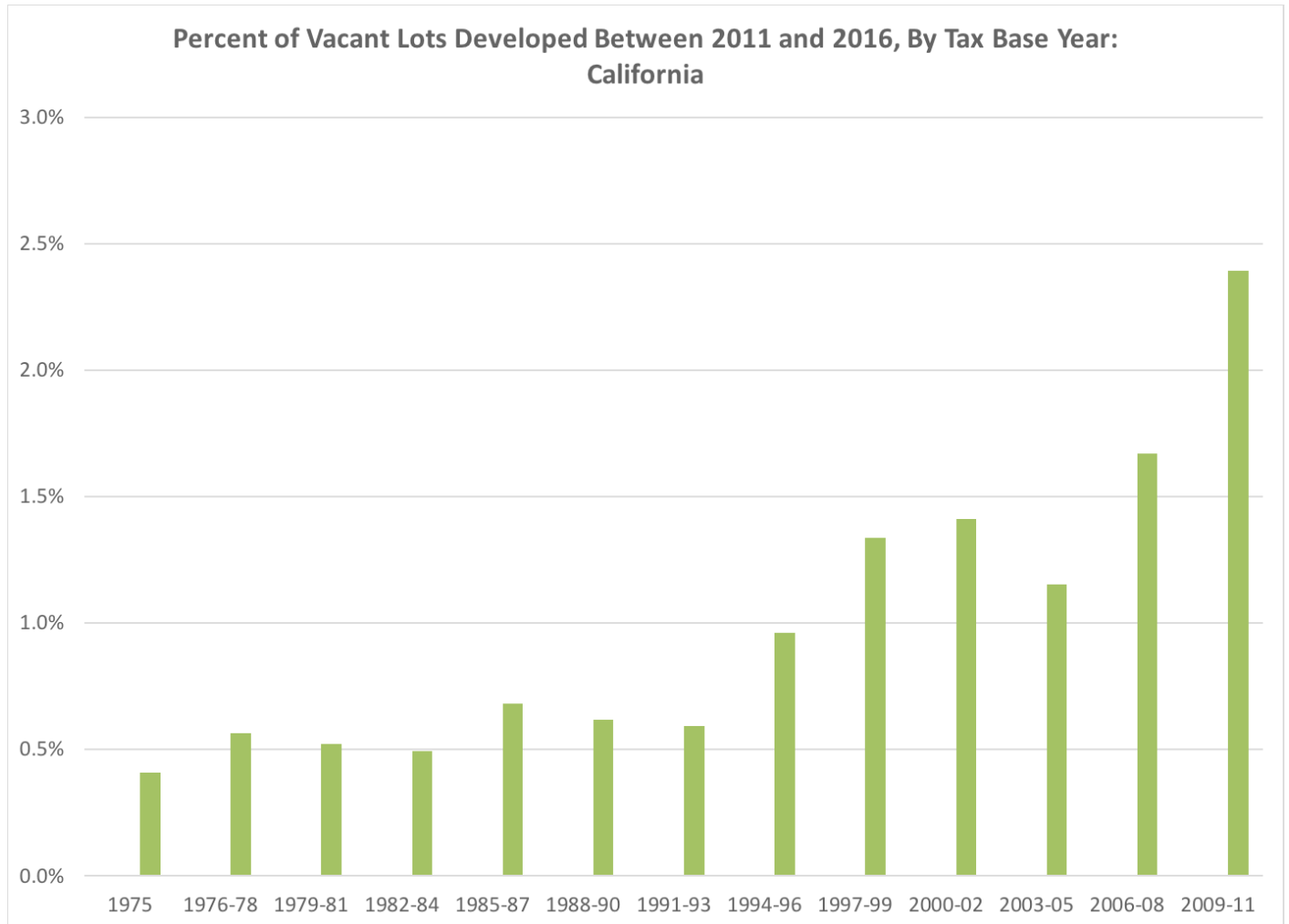
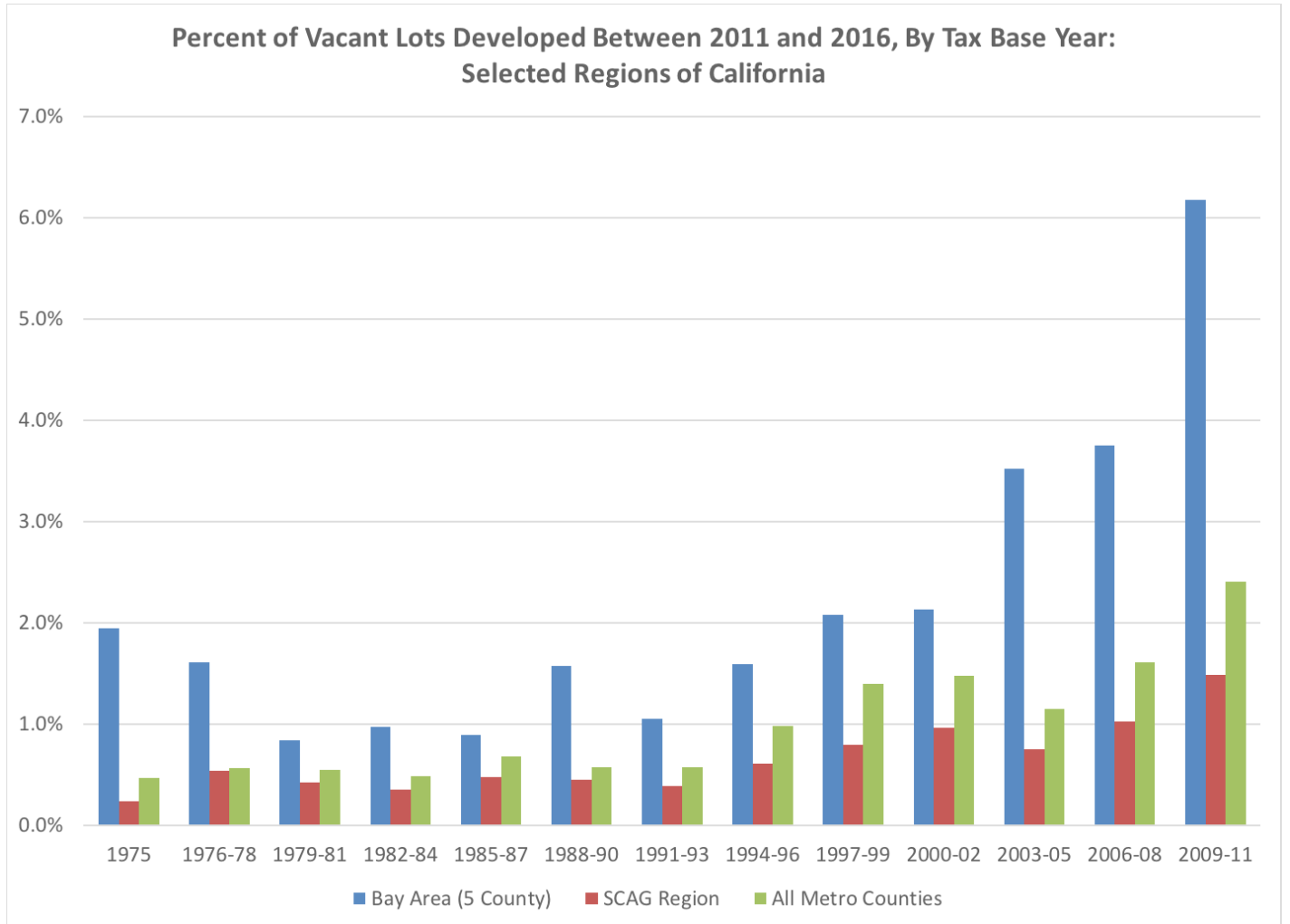


Figure 2:



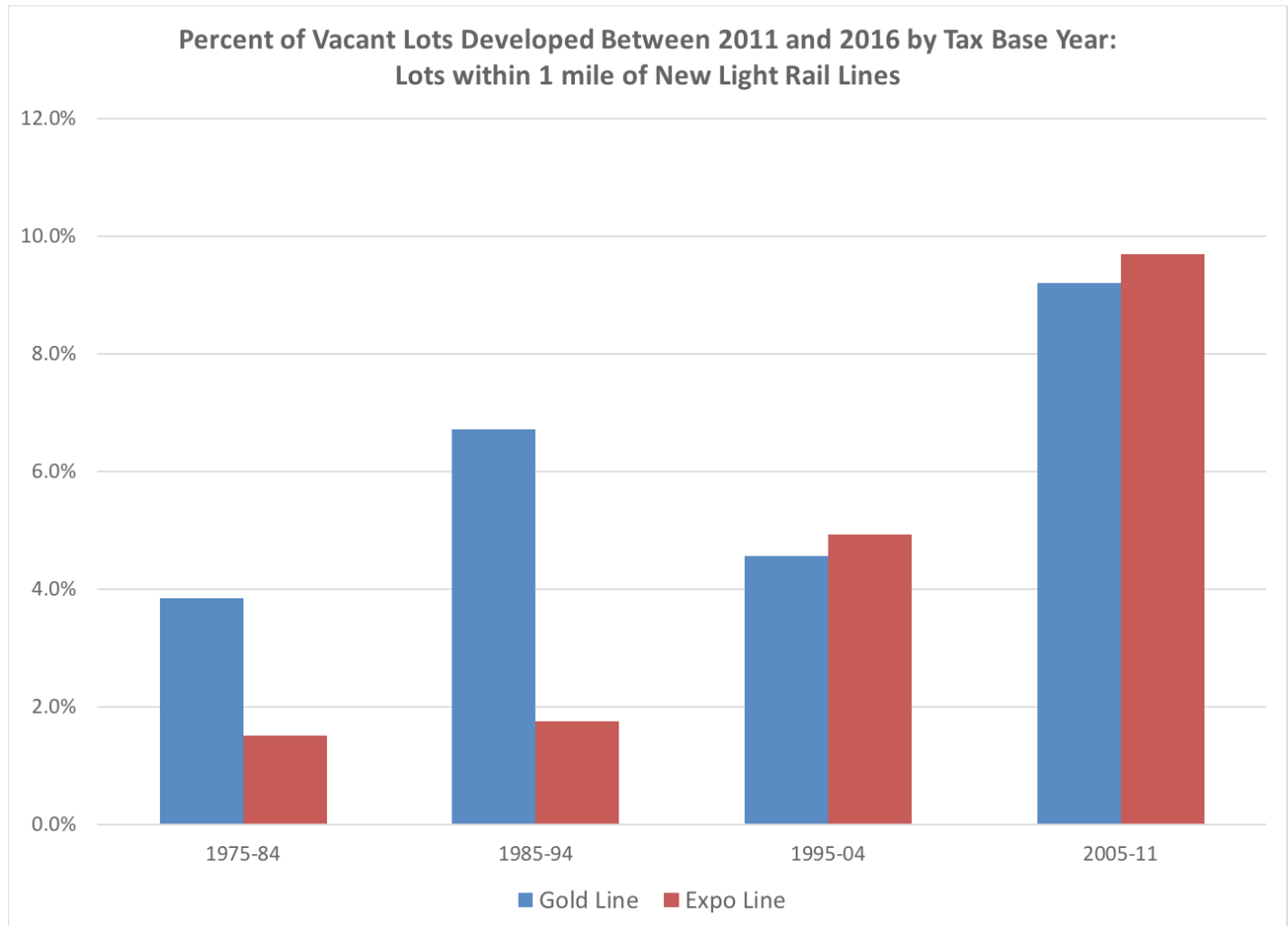
CAPTURING LAND VALUE FROM INVESTMENTS IN INFRASTRUCTURE

One of the most critical problems associated with the distortion of land markets is that explicit efforts to promote economic development can be thwarted by the perverse incentive structure of under-assessed properties. Specifically, if local authorities can't capture increased land value from investments in infrastructure from the property tax, then they will either have to find funding through other channels or under-invest in infrastructure (Smith and Gihring 2006; Peterson 2009).

To examine the extent to which under-assessed commercial property values was having this effect in California, we wanted to identify a major public investment that would increase land values, and then see how the levels of under-assessment of the property value of vacant commercial lots would affect the development of those properties. For this analysis, we looked at two major infrastructure investments in the Los Angeles area designed to contribute to the region's economic development: the Eastside Extension of the Gold Line Light Rail line from Union Station to Atlantic (completed in November 2009), and the development of the Expo Line, with the portion from Flower/Washington to La Cienega/Jefferson opened in April 2012. Both investments were designed to help stimulate mixed use developments along the transit corridors, to promote denser and more environmentally friendly development. Both were funded largely from sales taxes. We identified all vacant commercial lots within 1 mile of each of these light rail lines, and then examined how underassessment of market value (as indicated by older tax base years) affected development of these vacant lots.

As shown in Figure 3, vacant lots with more accurate assessment values (in more recent base years) were substantially more likely to be developed than lots that are substantially under-assessed. Along the Gold Line Eastern Extension, 9.2% of vacant lots with a tax base year from 2005 to 2011 were developed by 2016, compared to only 3.8% of properties with a tax base year from 1975 to 1984. The pattern was even more stark on the Expo Line Development, as 9.7% of vacant lots with a tax base year of 2005 to 2011 were developed by 2016, compared to only 1.5% of vacant lots with a tax base year of 1975 to 1984.

Local governments should be investing in this kind of infrastructure to promote economic development within their jurisdiction. The ideal way to fund this would be through capturing the value of increased land prices associated with this investment, thus ensuring that those who benefit the most from the investment help pay their fair share. Funding these light rail lines by sales tax is a regressive way of financing infrastructure development, and sales taxes are not directly linked to transportation system usage (Litman 2014; Lederman et al. 2018). Furthermore, the distortion of under-assessed property values seems to lead to less development than would be expected otherwise. With local governments unable to capture this increase in land price, they are likely under investing in infrastructure.

Figure 3:

Source: Authors' analysis of CoreLogic Parcel Data

UNDER-ASSESSED PROPERTIES AND INDUSTRY IMPACTS

One of the key questions in commercial property tax reform is the extent to which implementing a fair market assessment would shift the current mix of types of businesses. In other words, would particular industries be more impacted than others by fair market assessments. This question is actually quite hard to answer from existing data. We know from previous research conducted by researchers at the University of Southern California that almost 80% of the under-assessed value comes from only 8% of properties that are valued at more than \$5 million each, and that half of all commercial properties are already assessed at fair or near fair market value (Ito, Scoggins, and Pastor 2015, 2017). Thus, relatively large land-holders who have owned land for a long-period of time in California are the primary beneficiaries of the current tax loophole. In some cases, such as Disney Corporation's ownership of Disneyland or many older technology firms in Silicon Valley, it is easy to know how the ownership of land relates to the actual economic use of that land (Goldberg and Kersten 2010; Goldberg, Lenny and Kersten, David 2012). But ownership patterns are complex, and in many cases the legal owner of the land is not the one using the land to operate a business.

Thus, one critical factor in assessing the economic impact is whether a business owns or leases their premises, thus shaping whether they would be impacted directly or not by assessing property values at market rates. There is surprisingly little research on the percentage of businesses who lease rather

than own their premises. While there is no reliable data for all firms on whether they rent or own their primary premise, some evidence comes from a Kaufmann Foundation national survey of new businesses, which found that 6 years after starting, nearly 88% either rented their primary premises or operated out of a residence, such as a home or garage.⁶ Thus, we can conclude that newer businesses would be less likely to be impacted by commercial property tax reform than older businesses, who would be more likely to be owning their business premises than newer businesses.

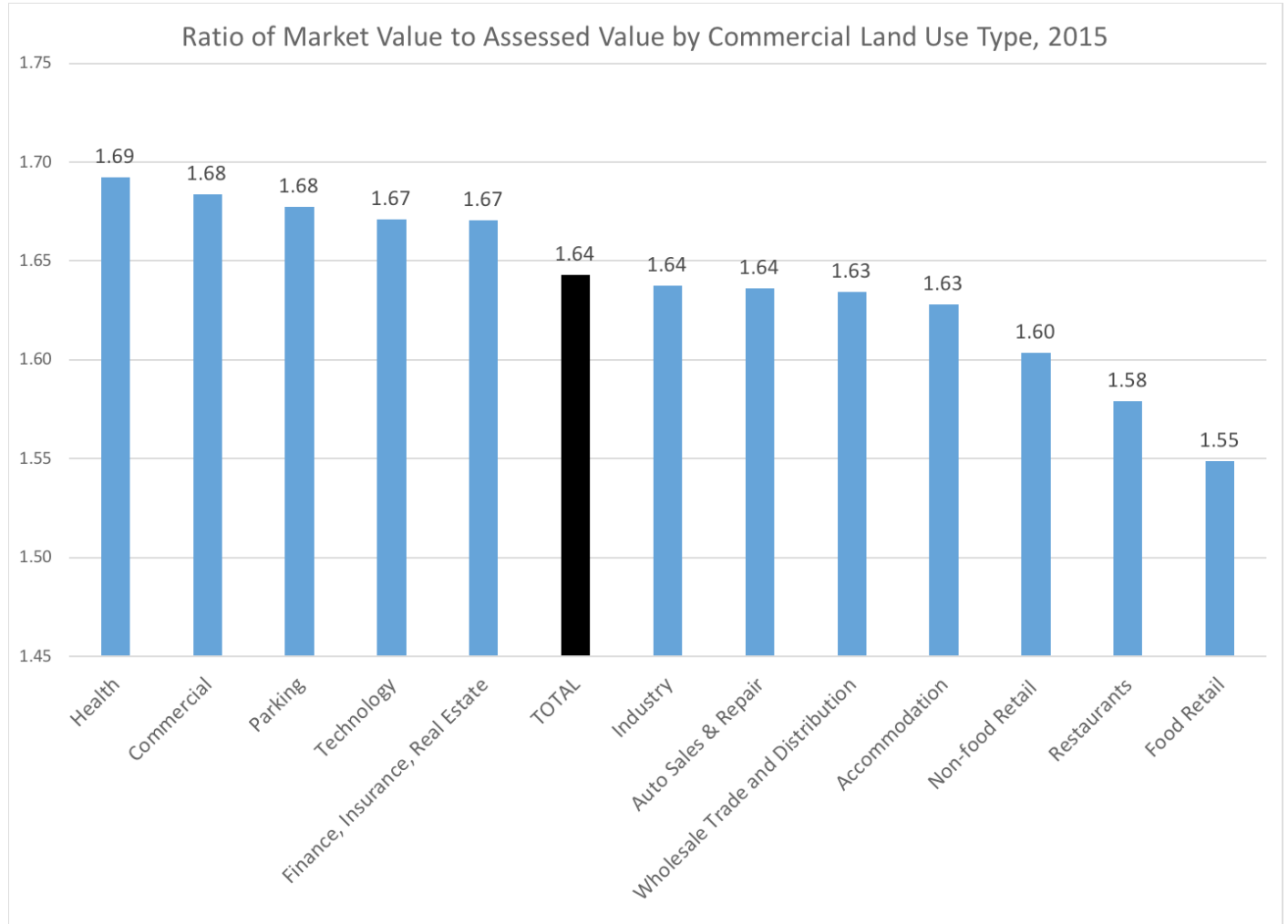
While the characteristics of the owners of land can be challenging to analyze, the zoning characteristics of the land is specifically designed, at least at a broad scale, to be related to actual activities taking place on the land, independent of ownership. This can help us understand any industry impact of property tax reform. Thus, we examined the levels of under-assessment of property value by industry land-use type, including all those industry-types for which there were a large enough number of sales in 2015 to provide a reasonable estimate. The results are shown in Figure 4, which shows the disparity ratio—the ratio of estimated market value to assessed value—for different commercial land use types across the state.

The first thing to note is that while there are some differences across land use types, there remains substantial under-assessment of land values in all sectors. On average, across all sectors the disparity ratio is 1.64—the market value is 64% higher than the actual assessed value—and values by individual land use type range from a low of 1.55 in food retail to a high of 1.69 in health care related uses. Thus, while there may be some differential impact by industry sector, the more significant impacts will be shaped by the size of land ownership across all industries and the owner-renter dynamics described above. In looking at the sectors that have the highest disparity ratios, the impacts are also likely to be quite modest on an industry wide basis, or even provide beneficial incentives. In health care with a disparity ratio of 1.69, the majority of hospitals are operated on a non-profit basis and are exempt from property tax. Parking lots have a disparity ratio on average of 1.68, and as discussed above, taxing them at market value is likely to provide an incentive for more efficient use of that land. Other sectors with somewhat higher disparity ratios, including technology and the finance, insurance and real estate sectors, are among those sectors with the highest profit margins in the state's economy and thus the most ability to absorb the increased costs. In contrast, many of the sectors with the lowest profit margins—retail sales, restaurants, and accommodation—also have the lowest disparity ratios and thus would be somewhat less impacted by reform.

These differences across industries, however, are modest, and thus there is unlikely to be a substantial differential impact at an industry level.

⁶ The Kauffman Firm Survey is the largest longitudinal study of new businesses ever embarked upon. It follows a random sample of new businesses started in 2004 through 2011. For details on the survey and methodology see https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2477217

Figure 4:



PROPERTY VALUE ASSESSMENT AND CITY FINANCE

Since the 1970s, cities in California have been able to find new sources of funding, despite the limits in property tax revenue associated with under-assessed property. This seems to have somewhat mitigated the negative incentives on infrastructure spending of poor land-value capture. Potential economic distortions related to fiscalization of land use remains a potential problem that commercial property tax reform might alleviate.

In addition to affecting land use, assessing commercial properties at fair market value will also have an effect on local government revenue. What local governments spend money on is primarily a political issue, but structures of local government financing can provide complex incentives and disincentives to different kinds of economic activities. Cities have a variety of different sources of revenue, and the decline of property tax revenue after Proposition 13 has led cities to become very creative in pursuing other ways of making up this revenue. In this section, we provide an overview of the overall structure of city finance, how this has changed, and the economic impacts of this shift. We then turn to a specific analysis of the relationship between the structure of city finances and infrastructure, which is so critical for economic growth.

DIVERSE REVENUE SOURCES AND MARKET DISTORTIONS

Cities in California have a range of sources of revenue to fund their operations. As shown in Figure 5, in 2015 property taxes accounted for 36% of total revenue for cities, up from 26% in 2003. The second largest source of revenue was Sales and Use taxes, which accounted for 22%, down from 29% in 2003. Other major sources of revenue include utility users' taxes, lodging taxes, business license fees, and a wide range of other smaller taxes and fees.

Following the dramatic loss of revenue after Proposition 13 passed, cities responded by increasing revenues from sources within their direct control (Reid 1988). This has meant a significant increase in utility users taxes and hotel taxes over-time. As shown in Figure 6 below, prior to the passage of Proposition 13, property taxes were the largest proportion of own-source revenue. The passage of Proposition 13 led to a dramatic decline in property tax revenue, and for much of the 1980s-2000s, sales tax was the single largest portion of cities' own-source revenues. This led to what many described as the fiscalization of land use.

The term fiscalization of land use describes the tendency for local governments to make these local land use decisions in order to maximize revenue through both the attraction of tax-generating uses and the reduction of government service costs. In the wake of Proposition 13, as cities became more dependent on sales tax than property tax, it became common wisdom among California planners that this fiscalization of land use would lead to a preference for retail use to generate greater sales tax revenue. Theoretically, the argument is clear. A dependence on sales tax and a desire to improve city finances will lead cities to rezone land for retail purposes, or to respond more favorably to development proposals that contribute to greater retail sales.

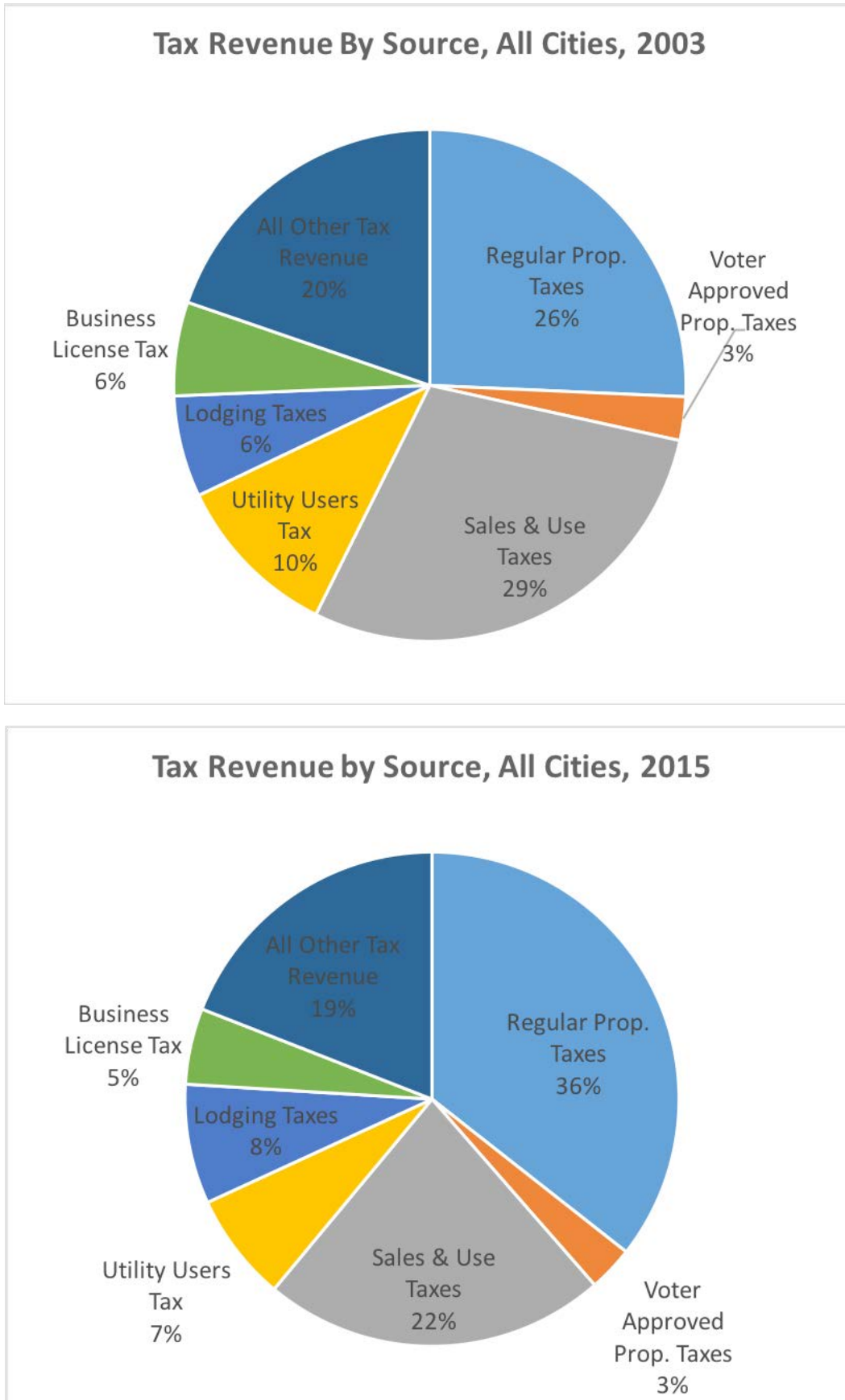
Documenting this impact, however, is significantly more challenging. In a recent review, Karen Chapple only found two studies that attempted to measure fiscalization of land use, with both documenting their contribution to suburban growth and urban sprawl (Chapple 2016). One study conducted a survey of city managers in California and found that the search for retail development and sales tax revenue was a prime motivation for land-use decisions, and documented substantial growth in inequalities in per capita sales tax revenue between central cities and suburbs along with the rapid growth of suburban

retail (Lewis 2001). Another looked at 47 metropolitan areas throughout the western US, and found evidence of a greater dependence on sales tax being strongly related to a growth of retail in non-central areas of these metropolitan regions, with the relationship particularly strongly related to revenue from sales of cars and building materials (Wassmer 2003).

The reasons that the impact on retail sales of the dependence on sales tax isn't even more widely documented is that retail businesses are ultimately dependent on supply and demand. Incentives that lead to preferential zoning for retail activity can redirect where retail activity is located, which has contributed to greater inequality between cities, and to sometimes destructive bidding between cities. The association with overall economic growth or decline, however, is linked to processes that are difficult to measure, or to attribute to a single source, such as the inefficiencies of sprawling urban areas and long commutes.

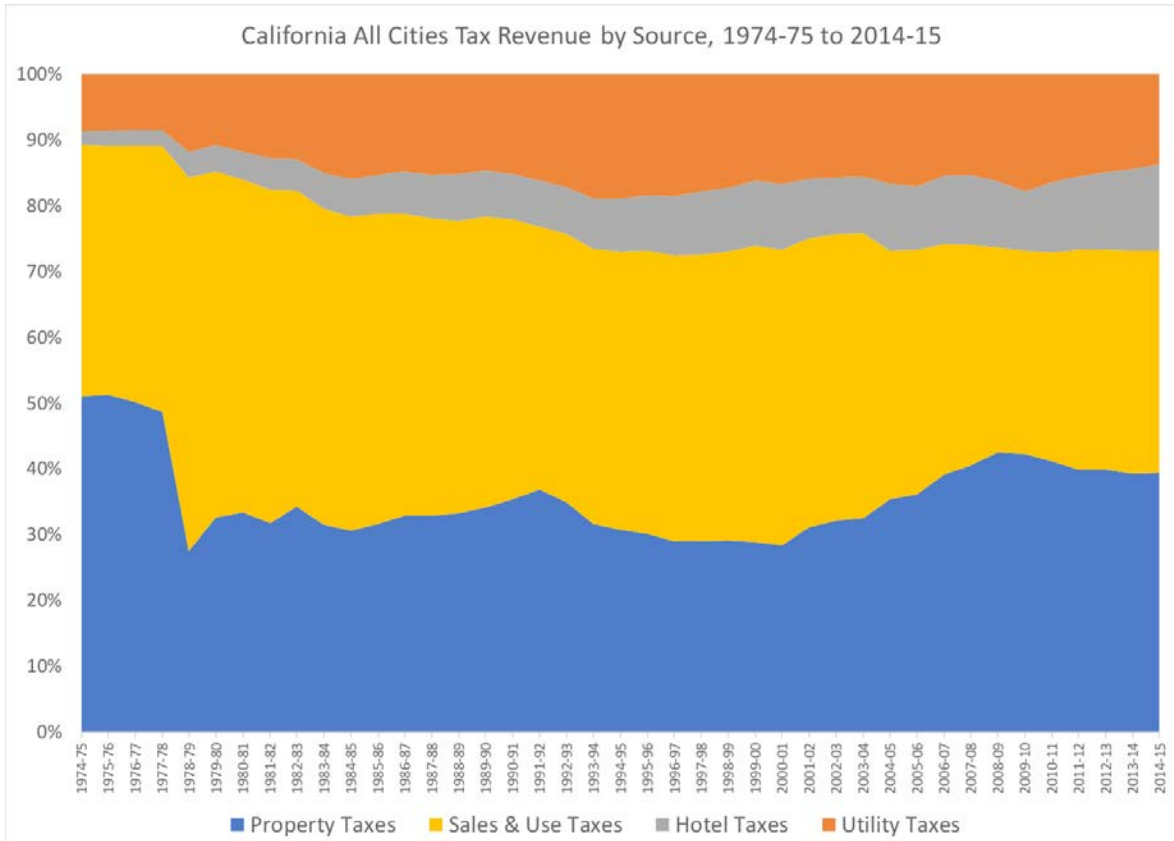
In recent years, as property values in California have continued to rise, property tax has once again risen to be the single largest source of revenue for California cities. But what has also become clearer is the long-term trend of cities being dependent increasingly on other forms of taxes, including utility user taxes and transient lodging taxes. In fact, revenue from hotel taxes has risen nine-fold since 1977-78, compared to only a 28% increase in revenue from property tax (see Figure 7). This is a particularly volatile source of revenue, as is sales tax. Increased dependence on these non-property tax sources of revenue reinforces incentives for cities to promote only certain types of economic activity. Commercial property tax, in contrast, doesn't distinguish between different types of economic activity, but provides a general incentive for commercial land to be used for the best and highest use.

Figure 5: City Tax Revenue by Type of Tax, 2003 and 2015



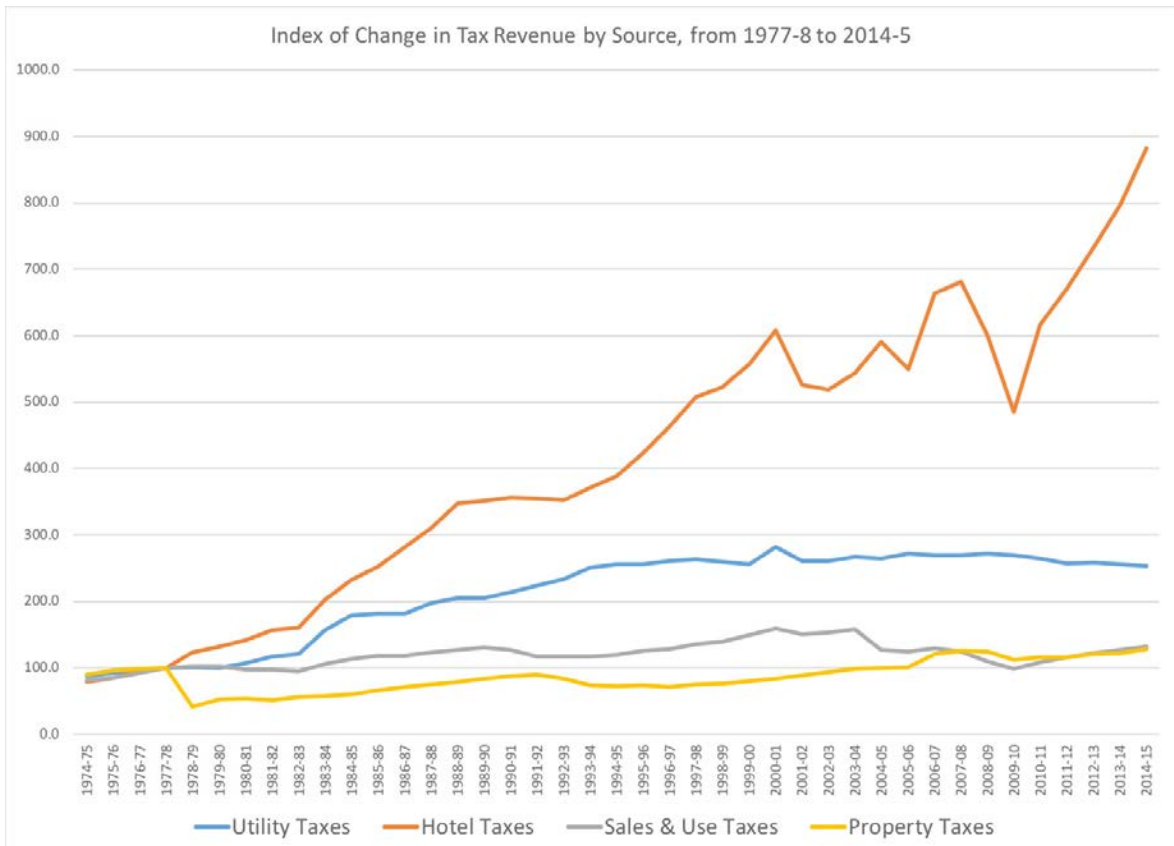
Source: Authors' analysis of California State Controller's Office Cities Financial Data

Figure 6: CA Cities Tax Revenue by Source, Utility, Hotel, Sales and Property



Source: California State Controller, Cities Annual Reports

Figure 7: Index of Change in Tax Revenue by Source



INFRASTRUCTURE INVESTMENT AND FINANCING

In considering reform, it is important to assess the impact on infrastructure spending of under-assessment of commercial property values. The condition of roads, bridges, schools, water treatment plants and other physical infrastructure has a large influence on the economy. State and local governments play an important role in infrastructure development. State and local governments own an estimated 90 percent of non-defense public infrastructure assets, and pay 75 percent of the cost of maintaining and improving them (McNichol 2016).

At a state level, California's direct expenditure on capital outlays is amongst the lowest of all states—California ranks the very lowest in infrastructure related capital spending as a share of total state spending, spending 3.3% of total state spending on capital investments, less than half the average across all states. When including local government spending on infrastructure along with state spending, in 2014-15 California ranked 37th in capital spending of all states.⁷

Increasing public expenditure on infrastructure, from both a local and state level, would likely contribute to significant improvements in private sector productivity. While estimates of the impact differ, there is now a growing consensus in the academic literature that infrastructure spending does contribute to overall economic growth (Heintz 2010; Romp and de Haan 2007). The impact is particularly significant in recessions, with the Congressional Budget Office finding that funding for state and local investment in infrastructure under the American Recovery and Reinvestment Act of 2009 had an output multiplier of from 0.4 to 2.2.⁸ Infrastructure spending also disproportionately creates middle and high wage jobs. In a study looking at three different scenarios of investment in infrastructure, for instance, the Economic Policy Institute found that low-wage jobs accounted for only 9.4 to 11.2 percent of all jobs created through infrastructure spending, compared to an economy-wide average of 18.9 percent (Bivens 2014).

How does the under-assessment of commercial property affect infrastructure spending at a local level in California? Our analysis in the previous section showed the problems of lack of land value capture in our current financing system, but overall, how does this affect the patterns of infrastructure spending and finance in California? The most straight-forward way to try to assess this is to compare spending on infrastructure in California to other states that don't have similar limitations on property value assessments. The best data for making this kind of analysis is a unique database developed by the Lincoln Institute for Land Policy called the Fiscally Standardized Cities (FiSC) database, which standardizes fiscal structures across cities and thus makes it possible to compare local government finances for 150 of the largest U.S. cities, including 16 from California.⁹ Patterns of revenues and expenditures for different cities are very difficult to compare because the delivery of public services is organized in different ways in different cities. Some city governments provide a full array of public services themselves, while others share the responsibilities with a variety of other overlapping independent governments. The FiSC database accounts for these differences in government structure across cities and makes comparisons more meaningful. It also has data back to 1977, so is able to capture changes that are the result of Proposition 13 in California.

Our goal was to compare spending on infrastructure in California cities to other cities across the country in this FiSC database. Even with standardizing budgets across cities, the interpretation of different patterns in relation to property tax is complicated because California is not the only state to put in place limits on the assessed value of property. Proposition 13 was the beginning of a national tax revolt that led to a number of other states putting in place various types of restrictions on assessed property. In the FiSC database, 79 out of the 150 cities have no limitations placed on the assessed value of property, while 35 (including the 16 California cities) have restrictions on both commercial and

⁷ Based on U.S. Census data on capital spending including the costs of construction and the purchase of buildings, equipment and land and of major alterations. Reported in McNichol (2016).

⁸ Congressional Budget Office (2015), "Estimated Impact of the American Recovery and Reinvestment Act on Employment and Economic Output in 2014" <https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/reports/49958-ARRA.pdf>

⁹ <http://datatoolkits.lincolnst.edu/subcenters/fiscally-standardized-cities>

residential properties. A further 8 have just restrictions on commercial property valuation, and 21 have just restrictions on residential property. The diversity in the mechanisms and formulas for determining these assessment limits also varies dramatically by state. Thus, it is difficult to know without detailed analysis of each state how much of an impact these limitations have, especially in contexts where property prices haven't risen as rapidly as in California.

As a first cut to understand patterns, we compared per capita expenditures on infrastructure¹⁰ in all 16 California cities, compared to all cities in states with no limitations on assessment values, and all cities in states that also have some limitations on both commercial and residential property. The results are below in Figure 8. For California, it shows that spending on infrastructure briefly rose following the passage of Proposition 13, and then declined through the late 1980s. At that point, per capita spending on infrastructure has increased consistently, with some downturns associated with recessions.¹¹ While California cities had lower on average per capita infrastructure spending until 1990, subsequently their spending on infrastructure has been somewhat higher than the average for other cities. Other cities that have also had assessment restrictions on both commercial and residential property have experienced more ups and downs, with overall declining per capita expenditures through the mid 1990s, rising to a peak in the 2004-06 period, and declining in 2010-12 to below their starting point in the 1970s. Meanwhile, cities that have had no assessment restrictions have had slowly rising increases in per capita spending since the early 1980s.

Figure 9 shows this capital spending as a percentage of total expenditures, rather than on a per capita basis. Here, California has seen a slight increase in the proportion of all expenditure devoted to infrastructure spending, but not as substantial an increase as the increase in per capita expenditure. What this suggests is that the increase in per capita infrastructure expenditure is not primarily a result of shifting priorities, but rather the result of increased overall expenditures. This is shown in Figure 10, which shows that overall per capita 'own-source' revenue (i.e. not inter-governmental transfers) has increased since the 1970s for all cities. What is particularly significant here is the rapid increase and then decline in total revenue for California cities associated with the property bubble and subsequent crash in the great recession. One final point of data is shown in Figure 11, which shows the percentage of total revenue that comes from 'own-sources', rather than transfers from the state and federal governments. This shows that relative to other cities around the country, California cities have been able to rely much less on transfers from the state, and have had to rely more on revenue generated from their own sources.

Together, what these various trends in infrastructure spending shows is the following:

- First, cities in California have been able to maintain and even increase spending on infrastructure, and overall spending, by finding new sources of funding, despite the limits in property tax revenue associated with under-assessed property. Local revenue bonds, used frequently for water and sewer project, are common at a local level. Cities also fund infrastructure projects through a range of local revenue sources, including most notably local sales tax revenues for transportation-related projects. Cities also can receive state and federal money that is passed through to local governments for a variety of different types of projects. Cities have also relied on development fees, negotiated as part of approving new development, for infrastructure financing, though this is less useful for infrastructure investment in existing areas (de Alth and Rueben 2005)
- A second factor that helps explain the increase in revenue and spending is overall rapid property values in the state. California property values are substantially higher than other states, and thus even with a lower tax rate, the absolute amount of revenue from property tax has increased substantially.

¹⁰ Includes Capital Expenditures in the following categories: Highway, Sewage, Solid Waste Management, Utility, Education, Hospitals, Parks & Recreations, Other General Capital

¹¹ Note that capital expenditures are often committed for multiple years, and thus the impacts of recessions on spending commitments are felt in years after the recession, rather than in the recession itself.

This analysis should be considered an initial assessment, and there is need for more research to fully understand these dynamics. Overall, while infrastructure spending in California is relatively low compared to other states, cities appear to have been able to find multiple source of funding to support infrastructure spending, and there is little evidence that limits on commercial property value assessments have been a substantial factor in explaining patterns of infrastructure spending.

Figure 8: Per Capita Capital Infrastructure Spending

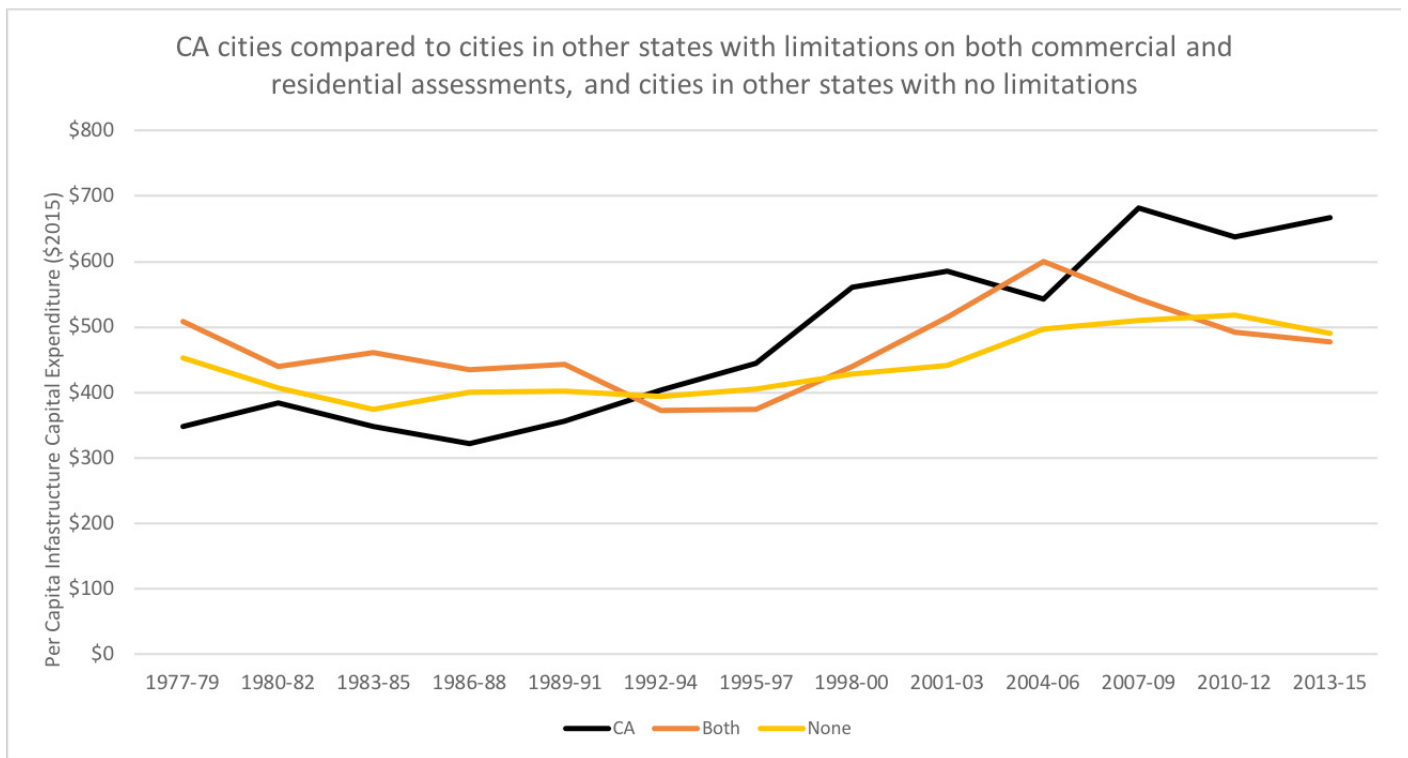


Figure 9: Capital Infrastructure Spending as % of all Expenditures

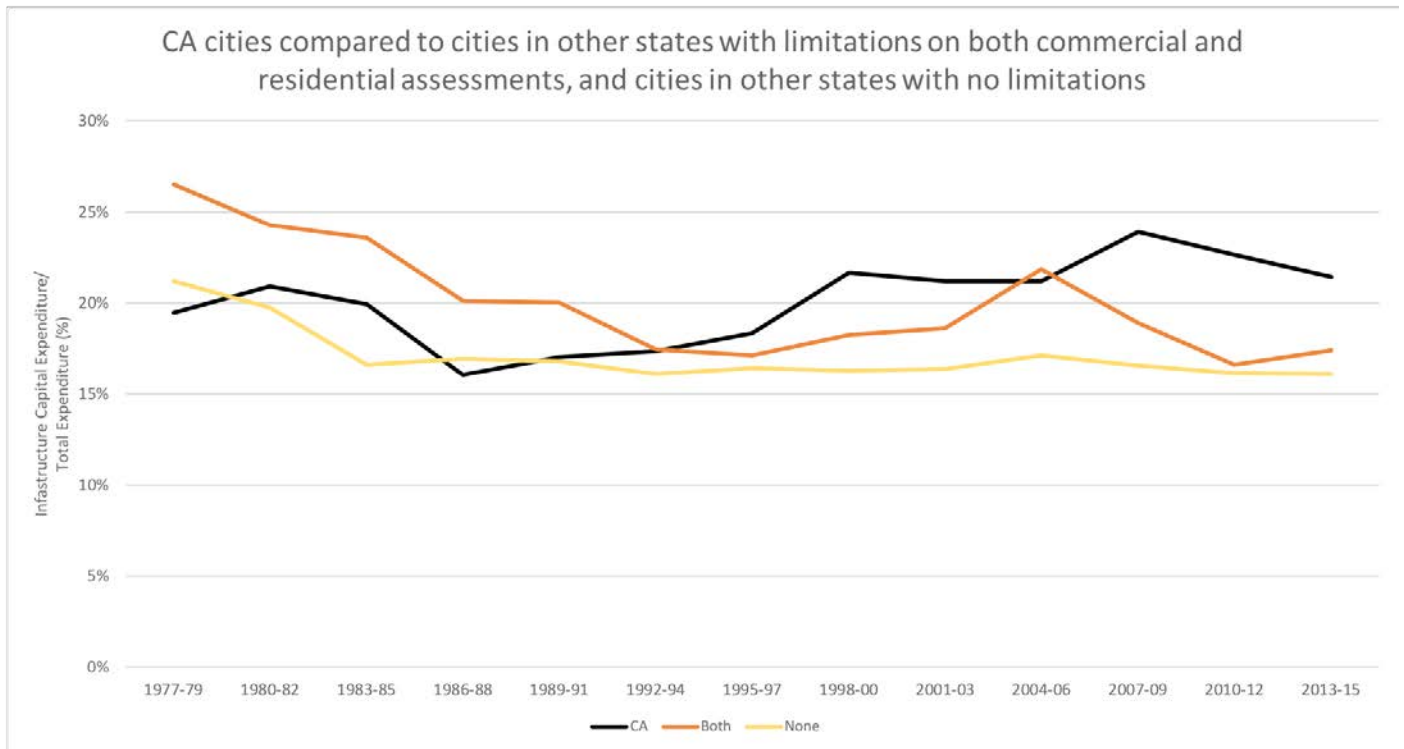


Figure 10: Per Capita Total "Own-Source" Revenue

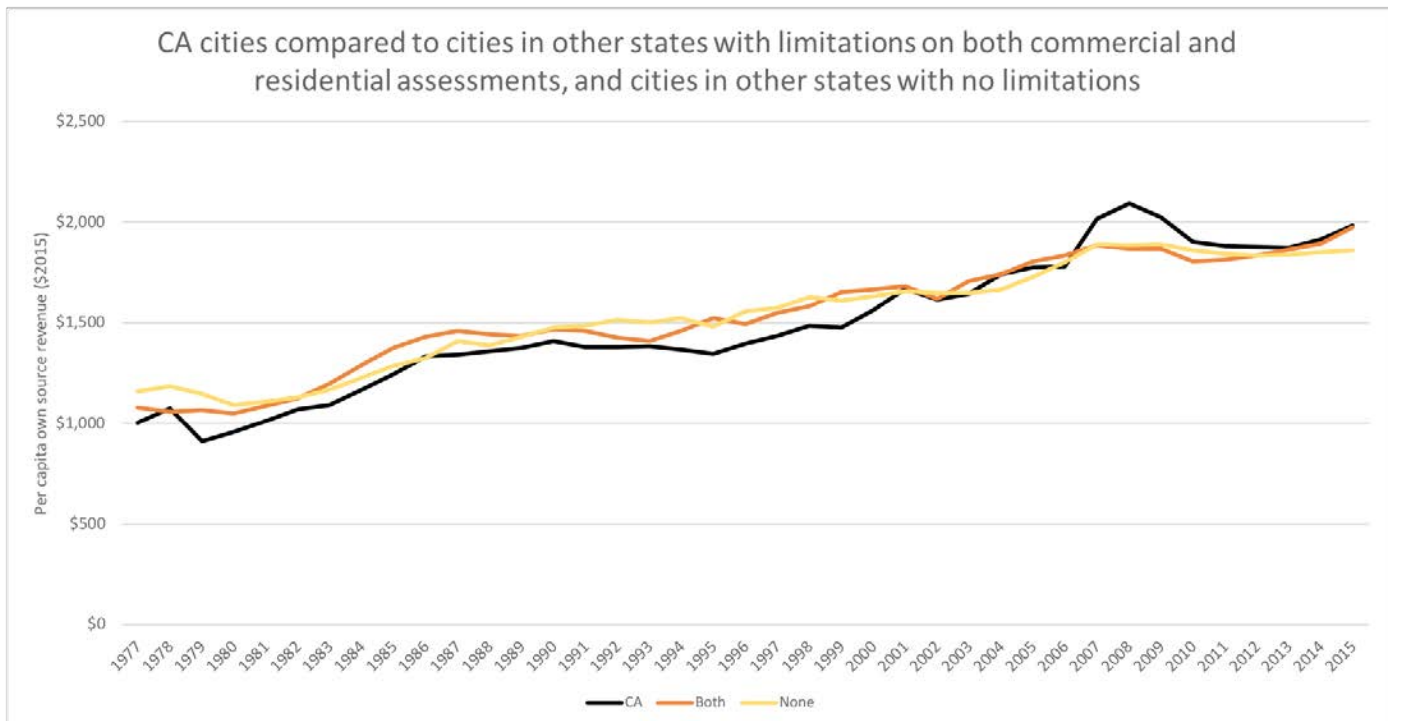
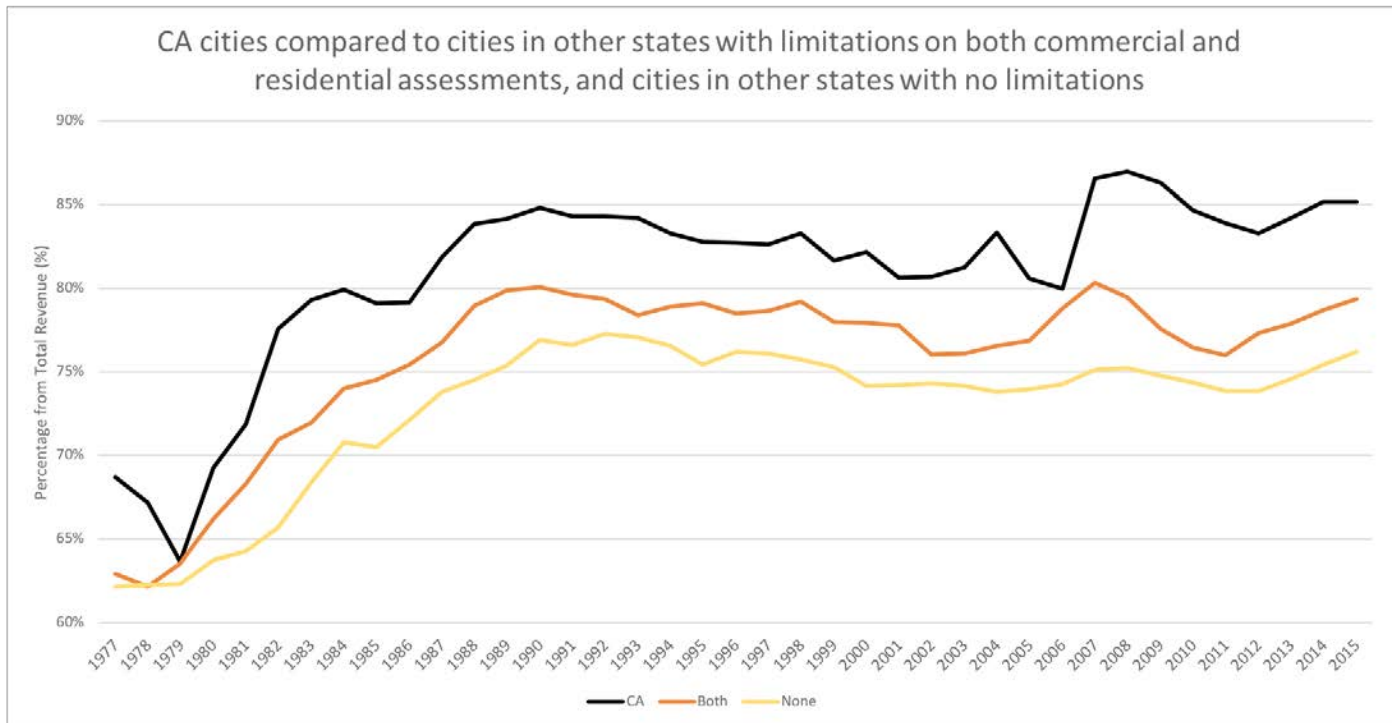


Figure 11: "Own-Source" Revenue as percentage of total revenue



CONCLUDING POINTS

In trying to assess the impact on economic development of potential reform of California's commercial property tax system, it is important to remember that the primary drivers of economic development have little to do with the structure of commercial property tax. Economic growth and development is primarily driven by consumer preferences and spending power, dynamics of supply and demand in different markets and industries, demographic change that shapes patterns of consumer demand, technological developments and global trading patterns that shape patterns of job creation, destruction and changing skill patterns. All of these processes are largely beyond the influence of local governments. Local government policies can influence economic growth and change in ways that have an impact, but it is important to remember that these influences in many spheres of economic activity are typically at the margins, rather than a core determinant of economic success.

Where local governments do have a significant influence on economic development is in the area of land use. Cities have zoning powers that determine particular land uses (e.g. retail, commercial, light industrial, mixed use) and city approval is required for business location, growth, and development projects. The structure of property tax, and its relationship to overall local revenue sources, does play some role in shaping local planning and zoning decisions. Local government revenue is also important in shaping the type of services provided and infrastructure developed, which can shape development patterns as well. In these ways, the structure of local government revenue sources, not just the amount, is related in important ways to these land use decisions and thus economic development overall.

As this report has discussed, there are three possible ways in which an under-assessment of property values affects local government land use and planning decisions.

- First, the overall reduction in property tax revenue minimizes the effect of increased property values driving economic development decisions. This restricts the ability of cities to link investments in improved land value with the increased revenue from that more valuable land and distorts economic decision making.
- Second, as cities have relied on other taxes that are related to only particular types of economic activities, such as the sales tax and hotel tax. This fiscalization of land use provides an incentive for city policy to promote only certain kinds of economic activity, thus constraining the best and highest use of commercial and industrial land.
- Third, unequal value assessments provide a subsidy for older businesses that own their property. This creates a competitive disadvantage for businesses that either lease their properties or have purchased their property more recently.

Empirically, in examining the potential effects on the economy of reforming our property tax system to tax commercial property at market rates, we come to the following conclusions:

- The financial costs of reform would be primarily born by a small number of very large land and building owners. An estimated 80% of the under-assessed value comes from the 8% of commercial land parcels that are worth \$5 million or more each.
- Businesses with increased property tax costs have essentially three options: reduce their profits; find ways of generating more revenue from use of their land; or pass on these increased costs to their customers. We did not try to model the specific economic combination of these three pathways of adjustment, and given the lack of data on business rental and leasing patterns, it would be extremely difficult to do so accurately. There are a number of reasons, however, why we think a substantial portion would be absorbed by the land owners and not passed on to consumers. Land owners with under-assessed properties who lease out their property would likely have to absorb a large portion

of their additional costs, since lease rates are primarily set by market conditions, not related to tax costs. Some commercial property owners use net leases, in which increased property tax costs are passed on to the leasee as part of the lease agreement, but in the long-term, even these property owners would likely absorb most of the additional tax costs. Taxing land at its actual market value would provide incentive for that land to be used for its best and highest purposes.

- Even if the entire additional costs to businesses were passed on to consumers—something we think is unlikely—the overall scale of increased annual costs to businesses represents less than one half of one percent of the overall California economy.
- Beyond the overall size of the fiscal impact, there is evidence that reforming commercial property taxes would have beneficial impacts on land use and local government fiscal incentives in the following ways:
 - There is clear evidence that reforming commercial property tax would provide an incentive for the development of vacant and under-utilized land. For example, statewide vacant properties that had a tax base year from 2009-11 were five times more likely to be developed by 2016 than properties whose tax base year was in the 1970s and early 1980s.
 - Assessing commercial land at market value would likely reduce distortions associated with the myriad ways cities have made up for associated revenue loss. The increase since 1978 in cities' dependence on sales tax, lodging taxes, and development fees has resulted in problematic incentives that has likely contributed to sprawl and inefficient land use.
 - Assessing commercial land at market value could have a beneficial impact on infrastructure development. It would allow cities to more accurately capture increasing land value from investment in infrastructure. This could also help shift funding of infrastructure away from more regressive sources such as sales taxes.
- Given these factors, shifting more revenue to commercial property tax would likely contribute to more efficient land use and development planning, and more dense urban development overall. This could have environmental benefits as well as economic.

Finally, it is important to remember that providing an additional \$11.4 billion to local government would have important economic benefits as well. Roughly a third of the additional revenue would go towards increased spending on education, and research continues to show a consistent and strong relationship between investments in education and overall economic growth (Benos and Zotou 2014). A recent study looking at state-level education quality and economic growth, for example, estimated that if every state were able to perform at the level of the currently top-performing state, it would add half a percentage point to annual growth over the lifetime of these better educated workers (Hanushek, Ruhose, and Woessmann 2017). Since California schools perform significantly below the national average in their measure, the benefits of California increasing to the top-performing state are even more dramatic—in fact, closer to a one percentage point boost in annual growth.

Thus, our central conclusion is that taxing commercial properties at market value would likely have a modest positive impact on land use, urban development and the economy overall.

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