PROSPECTS FOR LAND RENT TAXES IN STATE AND LOCAL TAX REFORMS

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Abstract

This paper develops a general equilibrium model of an economy that produces output using capital, labor and land as inputs. It further develops an approach that allows specific parameters in the model to be matched to data in such a way as to ensure that the model can replicate important economic realities in different settings and under different initial tax systems. This model is then applied to the U.S. states. Each state's, as well as an "average" state's, economic conditions and tax system are thus formed into a separate model, and policy simulations are performed for each of these models in order to identify different conditions under which reforms of different types are likely to succeed economically and politically. Each reform that is simulated involves an increase in taxes on unimproved land rents sufficient to cover the shortfall in tax revenues from a decrease in some distortionary tax on capital and/or labor. Under plausible yet conservative assumptions, large tax reforms that eliminate entire classes of distortionary taxes are found to be economically feasible in virtually all states, although prospects for such reforms are clearly better in some states than in others. Generally, reforms are most likely to succeed in states with high per capita taxes, low per capita incomes and in which reforms emphasize decreasing state and local taxes on capital rather than on labor – taxes such as corporate income or property taxes. In addition, the paper considers the political feasibility of such reforms by focusing on the likely impact on land values and thus land owners. Under plausible assumptions, reforms that lower taxation of capital result in either *increases* in land values or only modest declines, while reforms that lower taxes on labor lead to more substantial drops in land values. Finally, reforms of this kind are shown to hold more modest promise when states are assumed to conduct them simultaneously rather than in isolation.

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1. Introduction

Economists have long understood the efficiency properties of a tax on land value or land rents,[2] but only recently has interest in the land tax emerged as a serious state and local policy consideration.[3] Discussion in policy circles is, however, handicapped by the paucity of applied research on the topic. In particular, what policy makers require is a sense of how big a difference a shift toward land as a tax base can in fact make in terms of improvements in general welfare, as well as how large the anticipated distributional issues are likely to be. Conventional wisdom in terms of the direction of these effects is relatively straightforward: overall income and output would rise as a result of shifting toward the more efficient land tax, but those whose wealth is disproportionally held in land would lose as land values would likely fall. This conventional wisdom then implies that politicians have to trade off the benefit of greater general welfare with the cost of imposing losses on a concentrated group of land owners. It is difficult to see how this trade-off can be considered thoughtfully without a sense of how big the general welfare gains and the concentrated wealth losses are. Our aim in this paper is therefore to quantify these gains and losses more precisely, or at least to clarify what their absolute and relative sizes depend on.

The first thing to note is that the conventional wisdom is only partially correct. It is indeed unambiguously true in most theoretical models that a properly designed (revenue-neutral) tax

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[2] A partial list of influential theoretical investigations includes Netzer (1966), Feldstein (1977), Bentick (1979), Mills (1981), Wildasin (1982), Tideman (1982), Brueckner (1986), Arnott (1998). While this literature has on occasion questioned the broad conclusion that land value taxation is always and everywhere an efficient tax, the general consensus that has emerged is that – if properly designed – a land tax is indeed efficient. Debate continues on whether tax administrators have sufficient information to implement such a proper design (see some of the contributions to Netzer (1998)).

[3] Pittsburgh's experiment with a property tax heavily skewed in the direction of a tax on unimproved land has been the most visible policy experiment (see, for example, Oates and Schwab (1997)) and has led to further discussions among local policy makers.

reform which raises the tax on unimproved land (and lowers some distortionary tax) will be efficiency-enhancing and likely result in increased output. However, despite the fact that land owners will pay a larger share of total taxes under such a reform, it is not correct to assume that this will always and everywhere lead to a decline in land values. The decreased distortions resulting from lower taxes on other factors may well lead to increased intensity of land use that results in higher income to land owners. Under certain conditions, the benefits to land owners of this increased economic activity may offset the higher tax payments they incur – and this combination would lead to an increase rather than a decrease in land values (Brueckner (1986), Nechyba (1998)).[4]

Whether this is the case or, more generally, how large gains or losses to land owners as well as others in the economy are likely to be, depends on the underlying characteristics of both the economy into which the tax reform is introduced as well as the nature of the tax reform itself. Welfare gains from such reforms essentially arise because factors like labor and capital are currently taxed in a way that distorts their use on land – and replacing such distortions results in more optimal factor uses. If, however, the economy is such that little is gained from investing additional capital or labor on land, then lowering taxes on capital or labor in favor of increased taxation of land carries limited prospects for success. Similarly, if an economy were governed by a tax system that was already highly efficient and did not substantially distort the allocation of capital and labor, improvements from such tax reforms would be unlikely to produce significant enough gains to capture the attention of policy makers.

Therefore, there are two important components to predicting the impact of revenue neutral

[4] Of course, if the land tax were increased without a simultaneous decrease in some distortionary tax, the decline in land values would be unambiguous.

tax reforms that raise taxes on land rents: First, the most relevant components of the economy must be appropriately modeled and conform to available data; and second, the tax system that is currently in place must be included in the model. In Section 2, we therefore develop a model that incorporates labor, capital and land as factors of production, and that includes a tax system which can potentially tax each of these factors. This model then contains a variety of parameters that can be calibrated using real world data so as to ensure that the model correctly replicates important features of the economies we seek to study, and it allows for taxes within the model to be set in accordance with how they are set in the economy of interest. Once the model is set up to replicate the current state of affairs in a particular economy, it can then be used to calculate the general equilibrium effects of tax reforms of different kinds and how they translate into changes in general welfare as well as the welfare of particular groups such as land owners.

Section 3 of the paper provides the data we use in the current study. We are interested in predicting how land tax reforms will impact different states in the U.S. depending on what kinds of tax systems they currently have and what types of economic forces are active in the different states. Therefore, we have gathered data on how income in the 50 states is generated as well as how taxes are raised by state and local governments in each of these states. This then permits us to derive 51 different sets of parameters for the model we developed in Section 2 – one for each of the states and one for what we denote an "average" or "typical" state. The remainder of the paper then conducts policy simulations for both the typical state as well as each of the 50 states under a variety of different assumptions.

This approach differs from most previous approaches in several ways. First, some previous work has been based on partial equilibrium analysis (for example, Pollock and Shoup (1977))

which necessarily leaves out potentially important forces. Ours operates within a fully general equilibrium model. Second, the primary focus in other work has been either on very local urban economies (DiMasi (1987)) or on national reforms (Nechyba (1998)), while this study focuses the analysis on the state level. Third, previous work has been based purely on small, open-economy models that assume factor prices are determined exogenously by the world market, whereas this study attempts to be careful about the circumstances under which such an assumption is appropriate, identify when it is not, and alter the model to reflect this when such a change is important to the analysis. Fourth, much of the previous literature has focused solely on shifting taxes from capital to land, while this study attempts to consider real world distortionary taxes of different types that might be part of a comprehensive tax reform effort. Finally, this study aims not so much at giving a precise answer to the question of what will happen under a land tax reform, but rather attempts to recognize that "the answer" is likely to differ substantially in different economic settings. As a result, our focus will be on trying to gain some general lessons of what might be important for policy makers to consider in their particular situations.

As indicated above, we will proceed in several steps. First, Section 2 lays out the model that is used throughout the rest of the paper. Section 3 outlines the method by which different state economies and tax systems are calibrated under different assumptions. The substantive policy analysis then begins in Section 4 where we consider introducing revenue neutral tax reforms of different types (each raising the tax on land rents) into a "typical" U.S. state under a variety of different assumptions. We then settle on what we consider the most plausible assumptions and derive simulation estimates for each of the 50 states in Section 5. Section 6 proceeds to consider how results might differ if – rather than a single state conducting such tax reforms unilaterally –

the tax reform movement were a more national phenomenon that was conducted in many states simultaneously. Finally, Section 7 offers some distributional caveats, and Section 8 concludes with a brief synopsis as well as thoughts on unresolved issues and prospects for future research.

2. The Model

As in Nechyba (1998), the value of land is determined as the present discounted value of future rents assuming the land is put to its optimal use. The model allows for different types of land to have different expected future rents – which will later be reflected as different state economies will be characterized by such differences in land type.[5] More specifically, land type is characterized by a set of parameters α, β, ρ, and γ that enter into the production process most suited to that type of land. Production on land of type $L=(\alpha, \beta, \rho, \gamma)$ then follows the process

$$y_L = f_L(k, \ell, n) = \left(\alpha\left(\beta k^{-\rho} + (1-\beta)\ell^{-\rho}\right)^{\gamma/\rho} + (1-\alpha)n^{-\gamma}\right)^{-1/\gamma}, \qquad (1)$$

where k, ℓ, and n are the quantities of capital, land (of type L) and labor invested in production. Note that this is a generalization of a version of the production function used in Nechyba (1998) where

$$y_L = f_L(k, \ell) = \left(\beta k^{-\rho} + (1-\beta)\ell^{-\rho}\right)^{-1/\rho}. \qquad (2)$$

More precisely, the function (1) is a nested CES (constant elasticity of substitution) production function that simplifies to the less general non-nested CES function (2) when $\alpha=0$ – i.e. when

[5] As is done in Nechyba (1998), it is also possible for the model to incorporate heterogeneous land within a state rather than simply across states. Issues that are raised by such a feature of the model are discussed in detail in Section 7. For now we simply note that throughout the current study, we will allow land to differ across state but assume it to be homogeneous within a state.

labor plays no role in production.

2.1. Land Owner Maximization Problem

For illustration, we initially assume that there are no taxes and that land owners maximize profits. More precisely, an owner of one unit of land of type $L=(\alpha, \beta, \rho, \gamma)$ takes the domestic wage w and the domestic rental rate r as given and hires labor and capital so long as their marginal products are less than or equal to w and r. Thus, setting marginal products of capital and labor (holding ℓ -- the units of land -- fixed at 1) equal to r and w, we get

$$\begin{aligned} &\alpha\beta\left(\alpha\left(\beta k^{-\rho}+(1-\beta)\right)^{\tau/\rho}+(1-\alpha)n^{-\tau}\right)^{-(\tau+1)/\tau}\left(\beta k^{-\rho}+(1-\beta)\right)^{(\tau-\rho)/\rho}k^{-(\rho+1)}=r \\ &(1-\alpha)\left(\alpha\left(\beta k^{-\rho}+(1-\beta)\right)^{\tau/\rho}+(1-\alpha)n^{-\tau}\right)^{-(\tau+1)/\tau}n^{-(\tau+1)}=w \end{aligned} \qquad (3)$$

When solved for k and n, these two equations give $k_L^*(r,w)$ and $n_L^*(r,w)$ – the optimal levels of capital and labor per unit of type L land at domestic wage and capital rental rates w and r. While each land owner takes w and r as given, their actual levels in the economy arise, of course, endogenously – as described in the following sections.

2.2. Wages and Capital Rental Rates in a Small Open Economy

An assumption often made in virtually all economic models investigating land taxes -- and one that is maintained throughout Nechyba (1998) -- is that labor and capital are fully mobile across jurisdiction boundaries (i.e. the economy is "open"), and that the economy that is modeled

is small relative to the world economy (i.e. the economy is "small"). Under this *small open economy assumption*, after tax wages and capital rental rates are always equal to the world wage and the world rental rate -- and these world rates are exogenous parameters in the model. Put differently, the small open economy assumption is equivalent to assuming that labor and capital are infinitely elastically supplied at the world wage and capital rental rates.

Thus, for a small open economy, and in the absence of any factor taxes,

$$w = \overline{w} \quad \text{and} \quad r = \bar{r} \tag{4}$$

where w is the domestic wage, r is the capital rental rate, and ($\overline{w}$, $\bar{r}$) are the world wage and world rental rate respectively. The equilibrium before and after tax wage and rental rates in a small open economy are therefore determined entirely by the exogenous values of $\overline{w}$ and $\bar{r}$. Put differently, the wage rates are not a result of a domestic labor and capital market clearing because the wage and rental rates must be equal to the wages and rental rates offered in the world market.

This small open economy assumption simplifies the analysis greatly and may be sufficiently realistic when the model is applied to very small regions in a large economy. For example, given that a local government is a relatively small part of a large national labor and capital market with both labor and capital quite mobile across local jurisdictional boundaries, an infinite elasticity of labor and capital supply may seem like a plausible assumption. In this case, the "world" wage and capital rental rates would simply be the prevalent U.S. wage and capital rental rates, and the supply of capital and labor in the economy are assumed as infinitely elastic at those rates – primarily because of the mobility of these factors.

Neither labor nor capital, however, are nearly as mobile internationally as they are within the U.S., nor is labor in particular as mobile across state boundaries as it is within a state or smaller region. Furthermore, the U.S. represents a substantial portion of the world economy. Therefore, while the small open economy assumption may sometimes be plausible in the case of smaller states, it is certainly not realistic when the model is asked to estimate the impact of a simultaneous implementation of land taxes across all states (whether done individually by the states or centrally by the federal government). In other words, for the U.S. as a whole it would be quite restrictive and unrealistic to assume infinitely elastic supply of labor or capital. We will argue below that capital is relatively mobile within the U.S., which implies that the small open economy assumption for capital is appropriate for state level decisions. However, it seems implausible (given empirical estimates in the literature) to assume that factors such as labor are infinitely elastic in supply even within the U.S. Therefore, the model is next expanded to allow for deviations of the small open economy assumption.

2.3. Wages and Rental Rates in Large Economies

We begin by introducing the functions $\overline{w}$ and $\bar{r}$ for world wages and rental rates defined as

$$\overline{w}\left(N, \varepsilon_{\mathrm{n}}\right) = \overline{\mathbf{w}} N^{1/\varepsilon_{\mathrm{n}}} \quad \textbf{and} \quad \bar{r}\left(K, \varepsilon_{\mathrm{k}}\right) = \bar{\mathbf{r}} K^{1/\varepsilon_{\mathrm{k}}} \tag{5}$$

where ε_n and ε_k are the elasticities of supply of labor and capital, and N and K are the total quantity of labor and capital employed in the domestic economy. Thus, the domestic economy is assumed to potentially be large enough to impact the world wage and rental rates – or alternatively it is assumed sufficiently isolated through barriers to factor mobility that domestic

factor prices can differ from world prices. Domestic wages and rental rates again have to be equal to those world rates in equilibrium; i.e. in the absence of taxes on factors,

$$w = \overline{w}\left(N^*, \varepsilon_n\right) \text{ and } r = \overline{r}\left(K^*, \varepsilon_k\right) \quad , \tag{6}$$

where N^* and K^* represent the equilibrium levels of domestic labor and capital. Note that as ε_n and ε_k approach infinity, these functions simply approach the constants $\overline{w}$ and $\overline{r}$ -- the world wages and rental rates under the small open economy assumption. Alternatively, as ε_n and ε_k approach 0, the supplies of labor and capital become entirely inelastic, the polar opposite of what arises under the small open economy assumption. One interpretation of such inelastic supplies would be that labor and capital are entirely immobile across international borders and that consumption, savings, and leisure decisions are unaffected by wage and rental rates.

2.4. Taxes

We will assume that the tax system is such that each factor of production can potentially be taxed at some proportional tax rate and that these tax rates may differ over different factors. Thus, $\mathbf{t}=(t_k,t_\ell,t_n)$ is a feasible tax system so long as each element of the tax vector lies between 0 and 1. The addition of taxes to the model does not alter any of the optimization equations for land owners – except that w and r must now refer to before-tax wages, and land owners now take the before-tax wages and rental rates and thus the taxes on labor and capital as given.
Using the more general specification of world wages and rental rates of equation (5), the before tax domestic wages and capital rental rates are then transformed to

$$w = \frac{\overline{w} N^{1/\varepsilon_n}}{\left(1 - t_n\right)} \quad \text{and} \quad r = \frac{\bar{r} K^{1/\varepsilon_n}}{\left(1 - t_k\right)} \qquad . \tag{7}$$

As a result, $k_L^*(r,w)$ and $n_L^*(r,w)$ now are implicitly also functions of tax rates on capital and labor. Note, however, that labor and capital investments do not depend on the tax rate on land rents. In addition, $k_L^*(r,w)$ and $n_L^*(r,w)$ are now also functions of the endogenously determined total units of labor and capital demanded in the economy (which individual land owners take as given). We therefore now turn to the determination of equilibrium in the labor and capital markets.

2.5. Equilibrium in the Factor Markets

Under the small, open economy assumption, *r* and *w* in all the expressions above are always equal to the constants $\overline{w}$ and $\bar{r}$ adjusted by domestic tax rates. Thus, under small open economy assumptions, equilibrium in the factor markets for labor and capital is immediate from the exogenously specified world market conditions because total domestic labor and capital demand are never large enough to impact world factor prices. However, when the small open economy assumption is relaxed, *r* and *w* depend on the total quantity of labor and capital supplied in the domestic economy. While each individual land owner takes these quantities as given, the sum of all labor and capital hired on all the land plots in equilibrium – *N** and *K** – must be equal to the quantities which individual land owners take as given. Henceforth we will denote the before tax domestic wages and rental rates that arise in equilibrium as *w** and *r**

respectively, where

$$w^* = \frac{\bar{w}(N^*)^{1/\varepsilon_n}}{(1-t_n)} \quad \text{and} \quad r^* = \frac{\bar{r}(K^*)^{1/\varepsilon_n}}{(1-t_k)} \tag{8}$$

N^* and K^* arise from the individual decisions of many land owners – or from the decision of a "representative" land owner in the case of homogeneous land – as described in Section 2.8.

2.6. Land Rents

Land rents for one unit of land of type L depend on the marginal product of that unit of land in production -- which in turn depends on the optimal levels of capital and labor evaluated at equilibrium wage and rental rates: $k_L^*(r^*,w^*)$ and $n_L^*(r^*,w^*)$. Deriving the expression for the marginal product of land and setting $\ell = 1$, we get a gross of tax rental rate for land type L of

$$R_L(r^*,w^*) = \alpha(1-\beta)\left[\alpha\left(\beta\left(k_L^*\right)^{-\rho}+(1-\beta)\right)^{-r/\rho}+(1-\alpha)\left(n_L^*\right)^{-r}\right]^{-(r+1)/r}\left[\beta\left(k_L^*\right)^{-\rho}+(1-\beta)\right]^{(r-\rho)/\rho}, \tag{9}$$

where k_L^* and n_L^* are functions of r^* and w^*. Finally, the price of a unit of land of type L -- denoted $P_L(r^*,w^*)$ – is simply the present discounted value of expected, after-tax, future rental flows; i.e.

$$P_L(r^*,w^*) = \sum_{i=0}^{\infty}\frac{(1-t_c)R_L(r^*,w^*)}{(1+\delta)^i} = \frac{(1-t_c)R_L(r^*,w^*)}{\delta}, \tag{10}$$

where δ is the discount rate.

2.7. Equilibrium Tax Revenue

For any tax system $\mathbf{t}=(t_k,t_\ell,t_n)$, tax revenue from one unit of land type L is then given by

$$TR_L(\mathbf{t}_k,\mathbf{t}_\ell,\mathbf{t}_n) = \mathbf{t}_k r^* k_L^*(r^*,w^*) + \mathbf{t}_\ell R_L(r^*,w^*) + \mathbf{t}_n w^* n_L^*(r^*,w^*). \tag{11}$$

Note that the tax on land is modeled here as a tax on unimproved land *rents* and not as a tax on unimproved land *value*. It is of course true that a tax on land rents can easily be mapped into an economically equivalent tax on land value in this model.

Suppose, then, that the government faces an exogenous revenue requirement $\overline{\mathrm{TR}}$. The set of feasible tax systems that satisfy this revenue requirement is given by

$$\left\{(t_k,t_\ell,t_n)\in[0,1]^3 \,\middle|\, \sum_{\substack{\text{all land}\\ \text{plots}}} TR_L(t_k,t_\ell,t_n) = \overline{\mathrm{TR}}\right\}. \tag{12}$$

2.8. A Model with Homogeneous Land

In Nechyba (1998), we argued that one important distributional issue arising in debates over land taxes may arise if different types of land are affected differently under land tax reforms. We return to this issue in this paper in Section 7. Until then, however, we will make the simplifying assumption that all land in the economy is homogeneous, and we will investigate the impact of land tax reforms on the average land owner within the economy without making reference to second-order distributional issues arising from the potential existence of heterogeneity in land.

The total quantity of land in the economy will be denoted $\mathfrak{L} = [0,1]$, with each point on this unit interval representing one plot of land. Each land owner then maximized profits on his one unit of land in the way described above, with all land owners behaving the same in equilibrium. For the economy as a whole, we have to sum across all land plots, but the measure of all land is normalized to 1. Thus, we can simply look at one land owner's choices of n and k and know N and K for the economy as whole. Put differently, we can model the economy in the homogeneous land case by evaluating one representative land owner's maximization problem, and different economies will have different "average" land types yielding different representative land owners.

3. Calibration -- Bringing in the Data

In the policy analysis below, we will attempt to come to conclusions about the prospects of land taxation in different contexts. More precisely, we would like to be able to relate the model introduced above to the particular circumstances in which different states find themselves. If we can find a way to translate key aspects of state economies to particular parameters of the model, we can simulate the impact of land taxation in different states under the assumption that the state we are investigating is the only state undertaking tax reforms of a particular kind. In addition, we will want to ask not only how land taxation affects a state that undertakes such taxation in isolation, but also how states would be impacted if each were one of many states undertaking similar reforms. Thus, we would also like to find a way to translate key features of the national economy to particular parameters of the model in order to investigate the impact of a more universal inclusion of land rents into state tax bases.

All this, then, requires a general methodology by which we can translate data into specific parameters of the model whose predictions are then consistent with the data. These parameters are first and foremost the parameters that define the "average" land type for a particular economy - i.e. α, β, ρ, and γ – as well as the pre-reform tax system. The tax rates chosen should reflect those in place in the economy we are trying to model, while the land type parameters should be chosen so as to yield an equilibrium outcome for N, K, w, r, P and TR that is broadly consistent with the total labor and capital input, the wage, the rental rate, the average price of land and the total tax revenue in the data. In addition, supply elasticities for labor and capital must be specified.

3.1. State Economic Activity

Table 1 begins by reporting for each state the amount of income and fraction of total income from capital, labor and land. Labor and capital income are taken straightforwardly from government reports, whereas land income had to be imputed. More precisely, the Bureau of Economic Analysis (BEA) reports income from various sources by state. For purposes of this paper, the BEA's 1995 Regional Accounts Data reports of "earnings by place of work" and "dividends, interest and rent" were used as each state's estimate of labor and capital income respectively.[6] Land income, however, is not separately reported or easily calculated from regional accounts. For the U.S. as a whole, the ratio of land income to capital income has been previously estimated at 0.19 (Nechyba (1998)). Since farming varies substantially across states, however, we would expect the ratio of land to capital income to differ by states. We thus assume

[6] These data can be accessed at www.bea.doc.gov.

that

$$\frac{LI_S}{KI_S} = c + \frac{FI_S}{KI_S}$$

where LI_S, KI_S, and FI_S are land income, capital income and farm income in state S, and c is a constant common across all states. The Census of Agriculture (1997) reports for each state the number of acres of farm land as well as the per acre market value of such land. Annual farm income can then be imputed from the total market value of all farms, assuming that farm value accurately incorporates the present discounted value of all future income from these farms (and assuming a discount rate – 6% in our case). The constant c is then set so as to insure that the population weighted national ratio of land to capital income is equal to the previously estimated ratio of 0.19.[7] Given the estimates for state capital income, we can then calculate income from land using the state specific ratios of land to capital income. For each state, we therefore have an estimate of factor incomes from labor, capital and land. In addition, with values for land income and capital income, we can calculate the stock of capital and land value by assuming a rate of return (of 6%).

3.2. State Tax Rates

Next, we consider each state's tax structure. Table 2 reports per capita tax revenues from 5 major categories of taxes: property taxes, personal income taxes, corporate income taxes, sales taxes and "other" taxes. These are calculated straightforwardly by dividing the combined state

[7] This implies a constant $c = 0.1428$.

and local revenues for 1995 as reported by the American Council on Intergovernmental Relations (1997) by state population. It is less straightforward, however, to translate these taxes to tax rates on the three sources of income reported in Table 1 (labor, capital and land income). To do this, we will make somewhat simplistic incidence assumptions that are broadly in line with conventional wisdom in the public finance literature. Specifically, the property tax is assumed to be a tax on land as well as all forms of capital; the corporate income tax is assumed to be a tax solely on capital; and the personal income tax, the sales tax and "other" taxes are assumed to be borne by all forms of income proportionately. These incidence assumptions result in the estimates of average tax rates on labor, land and capital as reported in the first three columns of Table 3. The last three columns of the table report the average tax rates on these factors including federal taxes. Federal taxes include 1995 revenues as reported in the Economic Report to the President (1997) from: payrolls taxes (assumed to be borne by labor), personal income and excise taxes (assumed to be borne by all factors proportionately), and corporate income taxes (assumed to be borne by capital). Throughout the analysis, we will treat average tax rates as marginal tax rates and therefore make the implicit assumption that taxes on these factors are roughly proportional.

3.3. Elasticities

The empirical literature has struggled to come up with estimates for such parameters of the model as the elasticities of substitution, and there certainly are no firm estimates of these on an individual state basis. Our strategy with respect to these elasticity parameters is therefore to use the best available evidence to draw reasonable inferences of what these elasticities might be.

Four key elasticity parameters are crucial: the elasticity of capital and labor supply, and the elasticities of substitution embedded in the parameters ρ and γ of the production function.

With respect to the elasticity of substitution between capital and land, most empirical estimates are of urban elasticities – and the estimates range between 0.36 and 1.13, with most studies suggesting that the elasticity lies below 1. However, McDonald (1981) and Thorsnes (1997) present evidence that prior elasticity estimates may be downward biased, so that even the conventional wisdom of elasticities below 1 is somewhat in question. Given this state of the literature, we will use the relatively conservative estimates of 0.75, 0.5 and 0.25 as high, medium and low values for the elasticity of substitution on non-farm land. In addition, we will take into account for each state the fraction of its land used in farming, where the elasticity of substitution between land and capital is presumably significantly lower and close to zero. More precisely, we reduce the elasticity of substitution in proportion to the fraction of land in a state devoted to farming.[8] The elasticity of substitution between capital and labor is similarly in dispute, although wide agreement persists that it lies below 1. Here, too, we will settle for a conservative estimate of 0.5, and we will assume this is the same across all states.[9] These elasticity assumptions then translate directly into values for ρ and γ.

Finally, the elasticities of capital and labor supply must be specified. Under a full, small open economy assumption, both these elasticities would be infinite. However, there is little empirical evidence that labor supply elasticities are likely to be anywhere close to such levels

[8] For a given elasticity of substitution between capital and non-farm land σ_{KL}, that state elasticity is simply $\sigma_{KL}(1-(FI/KI))$.

[9] This is unlikely to be correct, but the empirical literature simply does not give enough guidance for me to differentiate between states based on the relative shares of industries contained in each state.

even in the long run. Standard estimates in the labor supply literature focus on estimating the change in hours worked as wage rates change, and these estimates tend to be relatively low – typically falling between 0 and 1. When considering states, however, an additional consideration is that of factor mobility. Not only are we concerned with the impact of after tax wages on hours worked by a given individual, but we are also concerned about the mobility of labor into or out of the state as after tax wages change. Many real world constraints to mobility are likely to prevent the perfect mobility required for a pure small, open economy assumption to hold, and we therefore assume through most of our state-level simulations a labor supply elasticity of 1. Capital is assumed to be significantly more mobile in the long run, and we therefore assume an infinite capital supply elasticity for most state level simulations. Internationally, however, capital tends to be less mobile, and the U.S. is not small compared to the rest of the world. Therefore, for simulations involving simultaneous policy changes in all states, we will assume elasticities of capital supply that are significantly smaller.

3.3. Calibration of α *and* β

With elasticity parameters set as described above, the remaining production function parameters to be calibrated are α and β. These are computed for each state under each set of elasticity assumptions in a way that replicates the state ratios of capital to labor income and land to capital income. More precisely, taking the tax rates on labor, land and capital as given in Table 3, there exists a unique set of α and β that exactly replicates these ratios under any set of assumptions regarding elasticities and wage and rental rates.[10]

[10] The world rate of return on capital is set to 0.06 throughout. The world wage rate is normalized to 1 throughout.

Table 4A reports these values for different assumptions regarding the elasticity of substitution between capital and non-farm land. To illustrate how the calibrated vales for α and β are generally related to underlying economic variables for the different states, Table 4B complements Table 4A by reporting some simple linear regressions that relate the calibrated values for α and β to various state characteristics. The structural parameter α is generally higher the greater the fraction of income within a state is derived from capital, and lower the greater the fraction of income is derived from labor. The factors influencing the structural parameter β are not as easily pinned down as the relationship with underlying variables seems to be more non-linear.

4. Tax Reform in a "Typical" U.S. State

It is apparent from Tables 1 through 4 that U.S. states – their economies and their tax structures – vary substantially. For example, labor income as a fraction of total state income is as low as 0.66 in Florida and as high as 0.80 in Alaska; capital income as a fraction of total income ranges between 0.17 (Alaska, Georgia, Utha) and 0.28 (Florida), and land income as a fraction of total state income is estimated to range between 0.026 and 0.106. Similarly, per capita tax amounts paid for the different types of taxes vary widely, with per capita property tax payments varying between $251 (Alaska) and $1,472 (New Jersey), per capita sales taxes varying between $213 (Oregon) and $1,640 (Hawaii), per capita personal income taxes varying between $0 (Alaska, Florida, Nevada, Texas, Washington, Wyoming) and $1,109 (New York), and per capita corporate income tax payments varying between $0 (Nevada, Texas, Washington, Wyoming) and $308 (New York). These per capita tax payment differences translate into

substantially different tax rates on capital, labor and land (see Table 3), and the differences in state economies are reflected in the very different values for α and β in Table 4A.

Nevertheless, we will devote this section to an analysis of a "typical" or "average" state, where an average state is simply defined as a state with the average (population weighted) characteristics of the fifty states.[11] This permits an in-depth analysis of various tax reform scenarios under different assumptions regarding some of the crucial parameters, and thus serves as both a useful empirical exercise while at the same time providing intuition for factors necessary to make such reforms a success.

4.1. Reducing Taxes on Capital and Labor in the Typical State

We begin our analysis of the typical or average state by considering the impact of reducing taxes on capital or labor while raising the tax on land rents in a way that leaves overall state revenues constant. Since almost every real world tax is borne not just by one factor of production, this analysis is largely illustrative – i.e. it would be difficult for policy makers to actually design tax reforms that literally just cut taxes on a single factor while raising taxes on land rents. We therefore then proceed to considering tax reforms involving specific real world taxes – such as sales, personal and corporate income as well as property taxes. Reductions in these taxes entail implicit reductions in tax rates on labor and capital in ways linked to the incidence assumption discussed above. The results we focus on initially assume that the state is a small open economy with respect to capital (i.e. the elasticity of supply of capital is infinite). As argued above, it seems implausible that such an assumption would hold with respect to labor. We

[11] In all state tables, the average state characteristics are given in the last line.

therefore begin our analysis with a state elasticity of supply of labor of 1 – which seems conservative given that it falls within the range of empirical estimates of labor supply elasticities when mobility of labor is *not* considered. Finally, our initial simulations will take the elasticity of substitution of capital for land to be 0.75 and the elasticity of substitution of capital/land for labor as 0.5. As argued above, these estimates are toward the middle to conservative end of the range of empirical estimates in the literature.

Table 5 reports simulation results for various levels of these types of tax reforms in a typical state economy with these elasticities. Specifically, for reductions of taxes ranging from 20% to 100%, the table focuses on the percentage changes in the level of capital investment, state income and labor force use, as well as on the impact of the reforms on the average price of land in the state and the percentage change in the tax on land rents required to insure revenue neutrality. Since taxation of land rents is always economically efficient, and since – under plausible elasticity assumptions – taxation of other factors is always economically inefficient, such tax reforms must always yield increases in state capital, income, and labor use. The interesting aspect of these simulations on these three variables is therefore not so much the direction of the change (which is theoretically unambiguous) but rather the magnitude of the change. With regard to the change in average land prices and tax rates on land rents, on the other hand, theory by itself does not offer an unambiguous prediction regarding the sign of the change – thus making both the direction and the magnitude of interest.

The first sixth of the table focuses on the hypothetical reduction in taxes on capital, while the second sixth reports results for the hypothetical reduction in taxation of labor. From Table 3 it is quickly seen that state and local tax rates on labor are substantially lower than they are for

capital, but at the same time, total state and local revenues from taxation of labor are substantially higher than total state and local revenues from capital taxation (Table 2). Reducing state and local taxes on labor by 20% therefore imposes a substantially larger drop in revenue than imposing a similar rate cut on taxes of capital – thus, all else being equal, requiring a much larger increase in taxes on land rents to compensate for this loss in revenues. Furthermore, the simulations assume a higher elasticity of supply for capital than for labor, as well as a greater implicit elasticity of substitution with land. Thus, the elasticity assumptions implicit in the analysis (and based at least broadly on empirical realities) would suggest that a cut in capital taxation is less painful than a cut in labor taxation for state and local treasuries because of the relatively larger inflow of capital resulting from such lower taxes.

It is then not surprising to see in Table 5 that revenue neutral reforms that raise taxes on land rents and lower taxes on capital are more feasible than similar reforms that lower taxes on labor. A 20 percent reduction in taxes on capital, for instance, results in much larger increases in capital and labor use than does a 20 percent reduction in taxes on labor. In fact, this increase in economic activity for a cut in taxes on capital is so large that state and local revenues barely decline – which then necessitates a trivial 1.81% increase in the tax on land rents. A similar reduction of tax rates on labor, on the other hand, requires a nearly 43% increase in taxes on land rents. Furthermore, land owners – who presumably care about the price of land – actually benefit slightly from the 20% cut in taxes on capital despite the fact that their land rents are being taxed at higher rates, while their land loses nearly 21% in value under a similarly sized cut in taxes on labor income.

Looking closely on the $\%\Delta p$ column in Table 5 in fact provides a good gauge of the

feasibility of different types of revenue neutral reforms. While there is no theoretical impediment to policies that decrease the average price of land by any amount – even by more than 100%, and while the gains from such reforms are always sufficient to in principle compensate land owners for their losses, there are clear political and equity arguments against reforms that impose undue burdens on one narrowly defined segment of the population. Revenue neutral policies that raise the price of land would therefore encounter very few obstacles as it becomes difficult to find anyone who loses from such policies.[12] Policies that result in relatively small decreases in land prices, while more controversial, could still be politically feasible. However, once the expected declines in average land prices become large, it is difficult to imagine such policies making it through a political process that tends to weigh concentrated benefits/losses more heavily than diffuse ones.

Using this standard, the difference between hypothetical cuts in taxes on capital and labor income become rather dramatic. Even the complete elimination of state and local taxation of capital results in a predicted decline in land values of only slightly greater magnitude than what is predicted from a mere 20% reduction in the taxation of labor income. Substantial reductions in taxation of capital income to be replaced by higher taxes on land rents therefore seem feasible, while similar reductions in taxes on labor income seem out of reach unless elasticity assumptions in reality are substantially more favorable than what is assumed in Table 5. We will return to this issue shortly but for now merely note that an elimination of state taxation of labor would in fact require such massive increases in taxes on land rents as to drive land prices into negative

[12] As demonstrated in Nechyba (1998), this statement is strictly true only if land is relatively homogeneous. If land is very heterogeneous, then it is possible for some land owners to experience declines in land value even as the average land owner experiences increases in the value of his land. This point is discussed in some more detail in Section 7.

territory under the current elasticity assumptions.

4.2. Reductions in Real World Taxes in the Typical State

Having explored the different issues raised by hypothetical reductions in taxes on capital and labor income, we now turn to an analysis of actual taxes used by state and local governments. In particular, the remainder of Table 5 reports results from revenue neutral tax reforms that lower either sales, personal income, corporate income or property taxes, where we note again that reductions in these taxes imply reductions in taxes on capital and labor through the incidence assumptions made earlier in the paper. Specifically, sales taxes are assumed to be borne proportionately by capital, labor and land as are personal income taxes, while corporate income taxes are assumed borne by capital and property taxes by capital and land. Furthermore, it should be emphasized that we are simulating reductions in *state and local* taxes, thus leaving federal taxes entirely in place even when state and local taxes are eliminated.

Looking first at the $\%\Delta p$ column, it seems that – at least in principle – most of the simulated tax reforms are feasible. The largest reduction in average land prices occur for reforms involving sales taxes, while the smallest such reductions occur for reductions in corporate income and in property taxes. Note how this arises straightforwardly from the lessons learned regarding hypothetical reductions in taxes on labor and capital in the previous section: given that reductions in taxes on capital result in more favorable outcomes than reductions in taxes on labor, we would expect real world tax reforms that disproportionately impact the implicit tax on capital to result in more favorable outcomes than those that impact the implicit taxes on labor. The incidence assumptions that we have made imply that reductions in sales as well as personal

income taxes translate into reductions in the implicit tax on capital, labor and land, while reductions in corporate and property taxes translate primarily into reductions in the implicit tax on capital.[13]

Compare, for instance, the impact of reducing the property tax to the impact of reducing the sales tax. The per capita revenue raised from these taxes before any reform is of roughly similar magnitude ($749 for the property tax and $850 for the sales tax (Table 2)), which implies that – all else equal – a certain percentage cut in one tax would have roughly the same revenue implication as the same percentage reduction in the other. All else, however, is not equal because of the different incidence assumptions: a cut in the sales tax is a cut in the implicit tax on capital, labor and land, while a cut in the property tax is a cut in the implicit tax on capital and land. Since capital is assumed to be more responsive to tax changes (due to the elasticity assumptions), cuts in property taxes then result in larger increases in economic activity and less of a need to raise the tax on land rents to insure revenue neutrality. A 20 percent cut in the sales tax, for instance, requires a nearly 24% increase in the tax on land rents, while a similar cut in property taxes requires virtually no change (0.2%) in the tax on land rents. Even a complete elimination of the state and local property tax calls for only a 23% increase in the tax on land rents, while an elimination of the sales tax would require a whopping 131% increase in the tax on land rents. With regard to comparing the political feasibility of the reforms, land owners are deeply and adversely impacted by reforms that focus on cutting the sales tax (losing up to two thirds of their

[13] This is entirely correct for corporate income taxes that are assumed to be taxes on capital, while it is essentially true in our context for property taxes despite the fact that these taxes are assumed to be borne by both capital and land. In particular, while it is true that a reduction in property taxes in the model is equivalent to a reduction in the tax on capital and land, our simulated reforms simultaneously raise the taxes on land rents to insure revenue neutrality – thus causing a decrease in the property tax to essentially be a decrease in the tax on capital income.

wealth under a complete elimination of the sales tax), while they would barely feel the impact of most reforms focused on the property tax (with at most a 7% decline in their wealth under the complete elimination of the property tax and with an actual increase in their wealth for less dramatic property tax reforms.)

A similar comparison can be made for reductions in the personal and corporate income tax rates, although this comparison is clouded by the fact that revenues from the state and local personal income tax are roughly five times as high as revenues from the state and local corporate income tax ($489 as compared to $107 on a per capita bases (Table 2)). Our incidence assumptions imply that reductions in taxes on personal income translate into implicit reductions in the tax rates on capital, labor and land, while reductions in the corporate income tax translate directly into reductions in the tax rate on capital income. Given that state and local corporate income taxes represent an overall small portion of the tax on capital incurred in the state (with sales, personal income and property taxes representing the bulk of the tax on capital income), even the elimination of the corporate income tax in the typical state results in a relatively modest reduction of the overall state and local tax rate on capital income (less than 10%). In the previous section we found that even a 20% reduction in the tax on capital results in virtually no change in the tax on land rents to insure revenue neutrality, which makes it not too surprising that even the elimination of the corporate income tax does not require an increase in the tax on land rents. More modest reforms involving the corporate income tax in fact require a simultaneous *reduction* in the tax on land rents, accompanied by an *increase* in the average price of land. This is decidedly not the case for reforms involving the personal income tax. Because this tax yields roughly five times the revenue of the corporate income tax, a 20 percent reduction is – all else

being equal – roughly equivalent to an elimination of the corporate income tax in terms of its revenue implications. Yet, because all else is not equal in that the different taxes impact capital and labor differently, this 20% reduction in personal income taxes requires a 14% increase in the tax on unimproved land rents accompanied by a 6.3% decline in land prices, while an elimination of the state and local corporate income tax requires no change in the tax on land rents and yields a slight (1.22%) increase in land prices.

4.3. Sensitivity of Results for the Typical State to Elasticity Assumptions

All of the results analyzed thus far are predicated on a specific set of elasticity assumption as indicated at the top of Table 5. So much of the story of tax reform, however, revolves around these assumptions, and while we have endeavored to start with assumptions we feel are conservative but still realistic, it is important to investigate how results change as the assumptions change. We therefore devote this section to a thorough sensitivity analysis by reporting simulation results for similar tax reforms under a variety of different combinations of elasticity assumptions. The one elasticity we hold constant throughout is the elasticity of substitution between capital/land and labor which has been set at a very realistic and conservative level of 0.5 and which – when altered around a small neighborhood of that value – does not impact results profoundly. The remaining elasticities – the elasticity of substitution between capital and land as well as the supply elasticities for capital and labor – are the main focus of this section.

To begin with, we note that the exercise of investigating the sensitivity of results of elasticity assumptions is not as straightforward as may be apparent at first. In particular, it would

not be valid to take the same production function values (α and β) as have been used for results reported in Table 5 and simply change the elasticity parameters. This is because a change in the elasticity parameters results in a different benchmark (pre-tax reform) equilibrium with different levels of capital, land and labor inputs that no longer correspond to those in the data. Thus, for each set of elasticity parameters, the entire model has to be re-calibrated to produce the values of α and β that accurately (in combination with elasticity parameters) yield the actual pre-reform ratios of capital to land and capital to labor ratios that all simulations are calibrated to replicate.

Table 6 reports the results from these re-calibrations. It provides the calibrated values for α and β for 24 different combinations of elasticity values. More precisely, the elasticity of substitution (σ_{kl}) is varied between the very low value of 0.25 and the value of 0.75 used in Table 5, while the elasticity of supply for capital is varied between 0 and infinity and the elasticity of supply for labor is varied between 0 and the (unrealistically) high value of 5. The values used to arrive at estimates for the simulations discussed in the last two sections and reported in Table 5 are highlighted in bold. Tables 7A through 7F then report the impact of the elimination of different hypothetical and real world taxes on the five variables reported in Table 5 (the percentage change in capital, income, labor, the price of land and the required change in the tax on land rents) under each of these 24 sets of elasticity assumption. The set of elasticity assumptions corresponding to those underlying results in Table 5 are again highlighted in bold.

As before, we begin with the hypothetical elimination of implicit state and local taxes on capital and labor (Tables 7A and 7B). The most striking and most immediate aspect of these tables is the large variance in predictions as elasticities vary. This variance highlights the

importance of using realistic elasticity values in simulating the predicted impact of state tax reforms involving a greater emphasis on taxation of land rents. At the same time, we do not want to convey the impression that all the elasticity values simulated in Tables 7A through 7F are anywhere close to realistic. Nevertheless, much can be learned from understanding how elasticities are the key to understanding tax reform involving taxation of land rents.

Take, for instance, Table 7A which simulates the impact of the elimination of implicit state and local taxes on capital. So long as the elasticity of supply of capital (ε_k) is zero, tax reforms focused on lowering taxes on capital income in favor of increased taxes on land rents have no impact whatsoever – both taxes are fully efficient, and the tax reform simply involves lump sum transfers from land owners to capital owners.[14] A similar phenomenon is true in Table 7B where the impact of eliminating implicit state and local taxes on labor is simulated – so long as the elasticity of labor supply is set to zero which then simply involves lump sumtransfers from land owners to workers.[15] Tax rate increases on land rents required to eliminate either capital or labor taxes under zero elasticity assumptions are huge, as are accompanying declines in land prices.[16]

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[14] However, a relatively large caveat needs to me made to this statement. In particular, the capital supply elasticity emerges in part from the choice households make regarding savings versus consumption. As is well known, the theoretical impact of distorting the after tax interest rate is ambiguous due to the likely offsetting impact of an income and a substitution effect. The income effect by itself does not cause efficiency losses, but the substitution effect does. Since these are offsetting, a zero capital supply elasticity may be masking a substitution effect offset by an income effect. If this is true, there are efficiency gains from reducing taxes on capital *even if there is no impact on capital use, output, or labor supply.* To appropriately measure true dead weight losses, one would therefore need to know compensated rather than uncompensated elasticities.

[15] This statement is subject to the same caveat as was raised in the previous footnote. The labor supply elasticity arises in part from the labor/leisure decision of households – and this decision also typically involves opposing income and substitution effects when the after tax wage is altered through tax policy. Again, the substitution effect – if present – would cause efficiency gains from lower taxation of labor income *even if there is no change in labor supply, capital use or output.*

[16] It may initially seem odd that the required land rent tax increases in the first row of simulations in Table 7A declines even though none of the simulations entail any change in economic behavior. The explanation, however, is simple and mechanical. Wage levels are impacted (see equation 5) by different labor supply elasticity assumptions

However, with elasticity assumptions at the other extreme, we obtain the highly implausible result that taxes on labor or capital can be entirely eliminated while simultaneously overturning the tax on land rents into a subsidy on land rents. (For the elimination of capital taxation, land rent taxation could be reduced by over 500% under the most extreme elasticity assumptions – with an accompanying increase in land prices of almost 500%. An only slightly less extreme result arises for the elimination of labor taxation under these assumptions.) Since these extreme elasticity assumptions do not fall within the range of empirical estimates, and since it is safe to assume that any political system would recognize the potential for such windfall gains, it is safe to assume that these predictions are of little more than theoretical curiosity. Our focus should therefore clearly be on the sets of elasticity assumptions that fall in between these extremes.

The small open economy assumptions in regard to capital, for instance, may strike some as overly optimistic – at least in the short run. We would argue that a strong case in favor of the assumption can be made in the long run, but a lower elasticity seems appropriate for more short run analysis. By looking up from the bold sections of Tables 7A and 7B, we can get a sense of the likely short run impact of eliminating taxes on capital and labor in favor of higher taxes on land rents. As is expected, such tax reforms lose some of their luster in the short run. For instance, while the elimination of state and local capital taxes seems eminently plausible under the long run assumption of an infinite capital supply elasticity, this same policy would require substantially higher taxes on land rents in the short run – roughly twice as high for a short run

– thus yielding different tax base sizes on which tax reforms are based.

elasticity of 5 and over 4 times as high for a short run elasticity of 1.[17] Since capital supply responses do not play as large a role in tax reforms focused on reducing taxes on labor, the difference between short run and long run estimates using different values of capital supply elasticities is not as great in Table 7B. Thus, while revenue neutral reforms focused on reducing state and local taxation of labor is not as promising as similar reforms focused on reducing state and local taxation of capital in the long run, the policy appeal of the former increases the shorter the time-span of concern.

For completeness, Tables 7C through 7F report similar results for the elimination of state and local sales, personal income, corporate income and property taxes for each of the 24 sets of elasticity parameters. As in Tables 7A and 7B, these elasticity assumptions are shown to matter a lot and in ways similar to those illustrated above.

4.4. Conclusions Reached from the "Typical State" Analysis

Several broad lessons emerge from the analysis of a typical state. First, elasticity assumptions are crucial to the exercise of predicting the likely impact of tax reforms because embedded in the elasticity assumptions are the magnitudes of behavioral responses as well as the level of initial distortions in the economy. Second, under elasticity assumptions we find both plausible and relatively conservative, our model then predicts that some types of tax reforms are more likely to succeed than others. In particular, tax reforms that are more focused on reducing taxation of capital in favor of land taxation will have more positive general welfare implications

[17] It is less straightforward to use estimates of the impact on land prices given that land markets might indeed be more forward looking toward the long run. Nevertheless, it is safe to say that land prices would likely fall more in the short run than the long run simulations indicate.

while at the same time minimizing the losses to landowners. As such, they are more feasible in a technical sense as well as politically. This would tend to lead policy makers to want to consider reforming corporate income and property taxes rather than sales and personal income taxes. Third, since elasticities tend to be lower in the short run, it is likely that some of the positive gains of tax reforms that reduce distortionary taxes in favor of land rent taxes will emerge only with time.

5. Differences Across States

As noted at the beginning of the previous section and as expressed in Tables 1 through 4, there are indeed substantial differences in both the nature of the states' economies as well as the way they currently fund their government expenditures. Thus far, we have investigated the consequences of revenue neutral tax reforms for an "average" or "typical" state that essentially reflects the average of state characteristics. In this section we turn to considering the 50 states explicitly in order to detect how differences in their underlying characteristics translate into differences in the prospects for revenue neutral tax reform with an increased emphasis on land rent taxation. We will do so by reporting the changes in capital use, labor use, state income, the average price of land and the level of land rent taxes required for the elimination of the same categories of taxes we investigated in the previous section. Due to space constraints, we can of course not present as thorough an analysis as we could on a single individual state in Section 4, but we do present results for three different levels of the elasticity of substitution of capital for land because this elasticity is one the literature is still quite unsettled on. In all simulations, we make the small open economy assumption with respect to capital, set the elasticity of labor

supply to 1, and fix the second elasticity of substitution to 0.5. As such, we view these simulation results as relatively conservative estimates of long run impacts of the simulated tax reforms under the assumption that each state is the only one engaged in this type of reform. Additional issues (dealt with in Section 6) arise when other states follow suit.

5.1. Replacing Distortionary Taxes with Land Rent Taxes in Different States

Tables 8 through 14 then report detailed results for simulations that replace various state and local taxes (capital taxes, labor taxes, sales taxes, personal and corporate income taxes, and property taxes) with taxes on land rents for each of the 50 states. Even a casual glance at these results confirms that prospects for land rent taxation can differ substantially by state. In Table 8A, for instance, the percentage change in the tax on land rents required to maintain state and local government revenues constant as taxes on capital are eliminated ranges from -1.91% to over 104%. Similarly, the impact of such reforms on land prices varies greatly, with prices barely declining (or even increasing) in some states while falling by as much as 85% in others. While the elimination of all state and local taxes on capital is therefore technically feasible in all states in the sense that land rent taxes would never have to be so high as to cause land values to become negative, such state and local tax reforms are clearly politically more feasible in some states than in others. Overall, of course, the elimination of distortionary taxes on capital to be replaced by non-distortionary taxes on land rents always brings with it a growth in the employment of capital and labor as well as an increase in state output – but the size of these impacts also varies greatly.

Similar large variances appear in Tables 9A-C where the elimination of all state and local

taxes on labor is simulated. Much more revenue is derived from taxes on labor than from taxes of capital, which makes it more unlikely that taxes on labor can as easily be replaced by taxes on land rents. In fact, in some states the increase in land rent taxes would have to be over 400%, and in many states such large increases in land rent taxes would actually lead to negative land values. The states where an elimination of state and local taxes on labor is technically feasible without driving land values below zero are easily identified in these tables as those states that experience a decline in land prices of less than 100%. Of the 50 states, this is the case in only 16. It is interesting to note that those states where the decline in land prices would be less than 50% are all relatively small rural states: Iowa, Montana, Nebraska, North and South Dakota, and Wyoming.

Tables 11 through 14 report simulation results of eliminating each of these four specific large taxes used by state and local governments: sales taxes, personal income taxes, corporate income taxes and property taxes. Table 10 translates the elimination of each of these taxes into the change in the implicit tax on capital and labor in each of the 50 states based on the incidence assumptions outlined earlier. It is these tax reductions in the implicit taxes on capital and labor that are actually simulated in the process of arriving at the estimated reported in Tables 11 through 14. Again, parts A through C of these tables provide results under three different assumptions regarding the elasticity of substitution between land and capital.

The elimination of a single type of tax is feasible in almost all cases in the sense that it would not drive land values below zero. However, taxes that are more heavily borne by capital are clearly more politically feasible candidates for reform as their elimination does not create as adverse an impact on land values as the elimination of taxes more heavily borne by labor. In fact,

the elimination of the corporate income tax (which is assumed to be a tax solely on capital) in favor of a tax on land rents actually results in an *increase* in land values in close to three quarters of the states that have a corporate income tax. In the case of the property tax, over a quarter of the states are predicted to experience an *increase* in land values as a result of the elimination of the much larger property tax in favor of a land rent tax. In contrast, the elimination of the personal income tax or the sales tax results in large declines in land values in almost all cases. Given that the main political hurdle to land rent taxation is the expected adverse impact on land owners, political feasibility of land tax reforms would seem to indicate again (as in the case of the "typical" state in Section 4) that such reforms ought to emphasize the simultaneous reduction in taxes such as the corporate income tax or the property tax.

In each of the tables that report results of tax reform simulations for the different states, capital and labor use as well as state output increases as it must whenever a distortionary tax is replaced by a non-distortionary one. At the same time, as indicated above, the magnitude of the predicted impact on these variables differs widely between the states. Since it is difficult to see clear trends as to what gives rise to these large differences, we proceed now to a quick analysis of these results using regressions that link changes in state output and land prices to underlying economic variables of the different states in hopes that a clearer picture will emerge.

5.2. Regression Analysis of the Results

In order to discover more systematic patterns in these results, Tables 15 and 16 present some simple regressions linking the underlying state economic variables to projected impacts of reforms on state output as well as average land prices. Each column in the tables represents

results from one regression (with t-statistics in parenthesis). For instance, in Table 15A, the first column represents a regression with the change in state output resulting from an elimination of state and local taxes on capital on the left hand side, while the second column represents a similar regression with the change in output resulting from an elimination of state and local taxes on labor. The left hand side variables in these tables are therefore taken from previous tables where the simulated impact of revenue neutral tax reforms was reported for the fifty states. The right hand side variables, on the other hand, are economic variables for the states – variables reported in Tables 1 and 2. For completeness, regression results are reported for high, middle and low elasticity assumptions (parts A, B anc C of Tables 15 and 16), but results do not differ substantially across these assumptions.

Consider first results in Table 15A. In each of the last four columns, the coefficient on the tax that is being eliminated is large and statistically highly significant. This simply confirms the result one would expect: the higher the distortionary tax that is being eliminated, the greater the efficiency gain from replacing it with a non-distortionary tax on land rents. Second, note that for each of the tax reforms that is analyzed, the coefficient on total tax revenue (last row in the tables) is positive and highly significant. Thus, regardless of which tax is eliminated and regardless of how large that tax is in a particular state, high tax states benefit more from tax reforms shifting toward land rent taxation. Third, the coefficient on state income is consistently negative and significant for all tax reforms. Thus, all else being equal, low income states experience greater percentage gains in state output from these kinds of tax reforms than high income states. Finally, states whose income is derived more from capital and labor (as opposed to land) experience the greatest efficiency gains when tax reforms lower taxes on these factors.

Tables 16A-C report results similar to those in Tables 15A-C with the exception that, instead of percentage changes in state output, the left hand side variable is the percentage change in average land prices. First, note the negative coefficient on the fraction of taxes collected through the sales tax when state and local sales taxes are eliminated (third column of regression results). A similar negative coefficient appears in the next column on the fraction of taxes raised through the personal income tax when that tax is eliminated, and in the last column on the fraction of taxes raised through the property tax when the property tax is eliminated. The one exception occurs in column 5 where state and local corporate income taxes are eliminated – in all three tables (Tables 16A-C), the coefficient on the fraction of revenues from the corporate income tax is positive. Thus, as expected, the impact of shifting tax collections to land rent taxes tends to depress land prices, except when the tax that is being replaced is a relatively modest tax on capital – the corporate income tax. From a political perspective, then, it may be easiest to initiate reforms raising the tax on land rents by lowering corporate income taxes. If corporate income taxes either do not exist in a particular state or are politically difficult to reform for other reasons, the property tax is next in line – while eliminating the property tax in favor of a tax on land rents will depress land values, this effect will be less than for the sales or personal income tax. A second interesting result emerging from Tables 16A-C reinforces this conclusion. Note that in the last row of each table, the coefficient on tax revenue is positive in the first and the last two columns, and negative otherwise. Thus, all else being equal, high tax states experience *increases* in land values when taxes levied primarily on capital (as in the first column and the last two) are eliminated, while they fall when other types of taxes are eliminated in favor of land rent taxation.

5.3. Summary of Conclusions from the State Analysis

The first and most striking lesson from simulating tax reforms for the 50 different states is how greatly results can vary depending on underlying economic conditions and current tax policies in those states. While it is not a surprise that a model of the type used in this study can give a variety of predictions, the variance in outcomes observed in Tables 8 through 14 occurs over a range of *empirically plausible* economic conditions and tax systems that are in place in the real world. Thus, far from arriving at "the answer" regarding the impact of land tax reforms, this study suggests that such answers are likely to differ greatly depending on the context in which the reforms are undertaken. Second, some more general conclusions regarding which factors are important for the prospects of land rent taxation emerge from comparisons across different states. Revenue neutral tax reforms that raise the tax on land rents are likely to be more effective in producing increases in output the larger the size of the reform, the higher the distortionary taxes in the state to begin with, and the lower the current level of state income. And, as for the "typical state" in Section 4, reforms are more likely to be politically feasible (in the sense of not causing great declines in land values) the more the reforms involve reductions in taxes on capital.

6. Reforms by Multiple States

Essentially all of our analysis thus far has focused on the scenario of a single state undertaking a revenue neutral tax reform that lowers or eliminates a distortionary tax in favor of raising the non-distortionary tax on land rents. As tax bases such as labor and capital become

more mobile, however, it is unlikely that only a single state would undertake such reforms by itself. Rather, as some states find it in their interest to consider such reforms, it is likely that other states find themselves facing similar policy issues, or that the issue of tax reform is raised in a state because of its discussion in a neighboring state. Therefore, it is worthwhile to consider next the impact of land rent tax reforms on a typical state when other states are also engaging in similar reforms.

The primary features of the model that are affected by such considerations are the supply elasticities. In particular, throughout most of the reported simulation results, we have made the small open economy assumption with respect to capital – an assumptions that yields an infinite elasticity of supply of capital. We have argued that this assumption seems appropriate for small states in the long run because capital within the country is rather mobile across state boundaries, especially over the long run. However, suppose that instead of a single small state, all states were to implement similar reforms at roughly the same time. Under that scenario, capital would in fact not move as readily from one state to another because the factor that lead to its movement under the single-state reform scenario is no longer present. Since capital would no longer move readily between states, any increase in the supply of capital under the scenario of all states implementing similar reforms must then come from one of two other sources: (i) an increase in domestic savings; or (ii) an inflow of capital from abroad. The empirical literature on domestic consumption/savings choices suggests that the first of these is unlikely to produce large increases in the supply of capital as consumers tend to respond relatively little to changes in rates of

return.[18] Furthermore, the literature on international capital mobility suggests that capital flows much more inelastically across national borders than across state borders.[19] Thus, even in the long run it is likely that a national movement to replace distortionary taxes on capital with land rent taxes would result in less of an increase in the supply of capital than what is predicted by the small open economy assumption. To put it differently, the more states consider undertaking the same reforms, the lower an elasticity of supply of capital is appropriate for the analysis of the likely impact of such tax reforms.

Similar issues arise with regard to the elasticity of supply for labor. In much of the analysis thus far, we have assumed an elasticity of labor supply of 1. While this is on the high end of the empirical estimates, it represents a relatively conservative estimate of the elasticity faced by a single state considering unilateral reforms of the type we consider. This is because most of the empirical estimates of labor supply responses do not take into consideration the impact of cross-state migration but only estimate the response of individuals' decisions on how much to work as the wage changes. Thus, we have felt quite comfortable with the elasticity assumption of 1 for the policy simulations involving a single state that would benefit from in-migration of workers. However, if the reform movement were a more national phenomenon, then – just as for the case of capital – inter-state migration of labor would be largely absent. Unless there is reason to believe that migration from abroad would make up for this (which is unlikely given the cultural and legal barriers to cross-country migration that do not exist for cross-state migration), this

[18] Various literatures have attempted to investigate the savings elasticity, with various plausible modest elasticities estimated. For a survey of some of these and of problems in conducting the analysis, see, for example, Elmendorf (1996).

[19] See, for instance, Gordon (1996) for a discussion of the evidence as well as some theoretical treatment.

implies that we ought to expect a more muted labor supply response as more states are conducting similar reforms.

6.1. The Prospect of Radical Tax Reforms Across Many States

Tables 7A-F (discussed previously in Section 4.3 in terms of sensitivity analysis) then provide insights as to how the prospect for land rent based tax reforms differs as more states conduct such reforms simultaneously. Since it is impossible to know precisely what supply elasticities are appropriate under different scenarios, the best we can do at this point is to notice in these tables that – for reasons that are clear on theoretical grounds – the positive effects of these reforms are more muted as supply elasticities fall. In each of these tables, the simulation results we find most plausible if a single state undertakes reforms unilaterally are highlighted in bold. A move vertically up represents a relaxation of the small open economy assumption with regard to capital. In Table 7A, for instance, a complete elimination of all state and local taxation of capital is feasible for the average U.S. state under our previous assumptions given that land prices are predicted to fall by only 25.72 percent. As the supply elasticity of capital falls to 5, such a reform remains feasible though politically more difficult – land prices now fall by 59.58 percent. But if the supply elasticity of capital falls to 1 as more states pursue the same type of reform, land prices would fall by 141 percent, thus rendering the reform infeasible. While it is difficult to imagine the capital supply elasticity falling by that magnitude, it is (as argued above) also unlikely that the labor supply elasticity remains at 1 under a more national move toward land rent taxation. Moving a column over, we note that a reduction in the labor supply elasticity further reduces the feasibility of a massive reform of the type that is simulated.

Similar trends hold in each of the other tables, although some reforms – such as the elimination of the state corporate income tax (Table 7E) – remain technically feasible and politically plausible under much more pessimistic assumptions regarding supply elasticities. What these simulations make clear, however, is that a national move toward land rent taxation necessarily focuses reform efforts on more modest proposals – proposals that would reduce rather than eliminate current distortionary taxes on labor and capital. Since capital supply elasticities are always likely to be substantially larger, it remains true that more successful reforms will tend to involve taxes that are borne more heavily by owners of capital – taxes such as corporate income and property taxes.

6.2. The Impact of a National Movement to Implement Modest State Tax Reforms

Given that radical reforms of the type analyzed through much of the paper are less technically and politically feasible when pursued on a national level, we proceed to considering more modest types of reforms. In particular, Table 17 offers some very conservative estimates of the impact of a national reduction in certain types of state and local taxes for the average U.S. state. Here we used supply elasticities for capital and labor of 1 and 0.25 respectively – estimates that we think of as extreme lower bounds and thus likely to give results that are too pessimistic. Thus, we interpret these estimates as worst case scenarios for the typical U.S. state if the state were conducting these tax reforms simultaneously with all other states. For comparison, we also offer predictions of the impact of such changes in state taxes for the typical state under the assumption that no other state changed its tax laws.

The difference between the first three columns and the last three columns is indeed striking.

Reductions of between 10 and 50 percent of each of the four types of taxes seems eminently feasible and sensible if the state conducts the reforms unilaterally. In the cases where the tax reform implies primarily a lowering of the tax on capital (i.e. the corporate income tax and the property tax), land values actually rise under these levels of tax reductions – thus causing owners of land, labor and capital to all benefit. Under the pessimistic elasticity assumptions behind the first three columns, on the other hand, the picture looks less uniformly appealing as land values drop substantially for all types of tax reductions. While the tax reforms remain largely feasible in the sense that they generally do not reduce land values below zero even under these pessimistic assumptions, the gain from the reforms seems small compared to the distributional burdens imposed on land owners. In the case of a 50% reduction in property values, for instance, land values drop by approximately two thirds while the state economy (in terms of its output) grows by only 1.4 percent. Again, we emphasize that these are highly pessimistic assumptions, but they remain within the range of the plausible when tax reforms are conducted on a national level.

The estimates of likely impacts of tax reforms tilting state and local tax systems more toward taxation of land rents are therefore highly dependent on the type of assumptions one makes – not only with regard to underlying economic variables, but also with regard to the degree to which such reforms are local versus national in nature. Were one to glance only at the last three columns of Table 17, the fact that states have not more heavily utilized land rents as a tax base seems profoundly puzzling. On the other hand, comparing these figures to the first three columns of the table provides some possible resolution of this puzzle as state policy makers may indeed be quite uncertain regarding the likely elasticities that are appropriate for tax policy analysis and as they tend to weigh concentrated costs more heavily than diffuse benefits. Still,

given that states compete extensively with one another in many state tax and regulatory policies,[20] the puzzle remains somewhat in tact. States that change tax policy away from distortionary taxes – and particularly away from distortionary taxes on capital – can currently look toward rather promising impacts on their economies when shifting toward the land rent tax *given that there is no large national movement toward land taxation.* While this may well cause other states to imitate such policies, there are gains to be had for those states that move early.

6.3. State versus National Efficiency Consideration

From a state perspective, gains that accrue to states as a result of unilateral reforms and the mobility of capital (and labor) within the U.S. are true efficiency gains. From a more national perspective, on the other hand, gains that arise purely from capital (and labor) moving between states are at least partly a matter of redistribution of resources rather than increases in efficiency.[21] Thus, the very optimistic picture for states considering unilateral reforms of the type we have simulated should not be taken as equally optimistic from a national perspective *unless increases in capital (and labor) arise from an increase in the overall pool of domestic labor and capital.* Thus, if land rent taxation indeed does become more heavily used by the states as some states copy the reforms in other states, the prospects for land rent taxation are better the lower the barriers to international labor and capital mobility. While we have argued above that current

[20] There is substantial anecdotal evidence of such competition between states, and a large theoretical literature (see, for example, Wilson (1999)). In addition, recent empirical tests of strategic competition seem to confirm its presence in state and local policy making (see, for example, Brueckner (1998)).

[21] This is not to say there are no efficiency gains – there are still some reductions in dead weight losses from simply using less distortionary taxes, and these reductions in dead weight losses do not necessarily translate into increases in output or increased uses of labor and capital. This is true for reasons previously discussed in footnotes 12 and 13.

evidence on international capital mobility suggests that it is lower then mobility of capital domestically, it is also likely that capital will become increasingly mobile across national boundaries in years to come. Similarly, if immigration laws become more liberal (as they have over the past two decades), the international mobility of labor would rise and thus cause the labor supply elasticity relevant for the scenario of a national move toward land rent taxes to be larger than what we have modeled.

Given current international trends in terms of factor mobility, we therefore suspect that even a national move toward tax reforms emphasizing land rent taxes holds greater promise than the first three columns of Table 17 would indicate. This would furthermore suggest that unilateral state reforms – while causing some redistribution of factors among the states – could also increase the overall level of capital and labor and thus generate efficiency gains from a national perspective that – while not as large as from a state perspective – are nevertheless substantial.

7. Distributional Caveats

In all of the analysis conducted throughout this study, we have made the simplifying assumption that all land within a state is homogeneous. Under this assumption, all land owners are impacted exactly the same way by any of the reforms we considered, and distributional issues only involved possible wealth transfers from landowners to owners of capital and labor. Given that output always increases as land rent taxes replace distoritionary taxes, and given that labor and capital always benefit from such reforms, the main political constraint to reforms was the potentially adverse impact that land rent taxes may have on landowners. For this reason, we considered a potential reform politically more feasible the less it depressed land values.

We believe this analysis is largely correct and representative of the political tensions raised by the prospect of land rent taxes. However, we do not mean to minimize second order distributional issues that arise under the more realistic assumption that land is in fact not homogeneous. Heterogeneity of land would be introduced into a model of this kind by considering the likely different elasticities of substitution that different parcels of land faced. Land that contains one story office buildings, for instance, might be easily converted to land that contains two or three story office buildings if taxes on capital were lowered in favor of taxes on land rents. On the other hand, land that is used to grow corn might not be improved as readily through additional infusions of capital. The former type of land would therefore have a large elasticity of substitution of capital for land, while the latter would not – and land tax reforms of the type considered in this study would harm the latter more than the former in that land values would fall more for land parcels that have low elasticities of substitution.

Thus, in addition to first order distributional issues involving wealth transfers from owners of land to owners of labor and capital, second order distributional issues *among* land owners are likely to arise as well. We have considered such issues formally in other contexts (Nechyba, 1998) and therefore forego an explicit analysis here, but policy makers ought to keep in mind that such issues are likely to arise. As demonstrated in previous work (Nechyba, 1998), it is for example possible to have some land owners experience an increase in their land values as land rent taxes replace taxes on capital, while other land owners experience large declines in their land values. This study has abstracted away from these issues and essentially offers only predictions regarding the average land parcels in each of the states.

8. Conclusions

This study presents a model of an economy and a strategy for calibrating particular parameters of the model so as to allow the model to match empirical regularities in the data of real world economies that rely on different tax systems and derive income from different sources. As such, the economy and tax system of a "typical U.S. state" as well as each of the 50 states were calibrated, and the general equilibrium impact of revenue neutral tax reforms that raise the tax on unimproved land rents was simulated under a variety of different assumptions. The results demonstrate that the impact of such reforms is likely to vary widely across different states that face different economic conditions and rely on different sources of current tax revenues. Under plausible yet conservative assumptions, reforms of tax systems toward greater taxation of land rents hold promise for substantial efficiency gains in the states, especially when states undertake such reforms unilaterally. As part of a more national tax reform movement, similar reforms are likely to be less effective but still hold promise for modest efficiency gains – especially in the face of increased international mobility of capital and labor. States that have relatively low initial output, that collect high per capita tax revenues, and that make heavy use of taxes on capital are likely to benefit most from tax reforms. Furthermore, in all states, revenue neutral tax reforms that increase taxes on unimproved land rents are likely to be both economically and politically more successful the more they rely on reductions in taxes on capital rather than taxes on labor. As a result, state and local corporate income and property taxes seem the best candidates for such reforms. Finally, because of increased land use intensity as distortionary capital taxes fall, it is plausible that modest reforms of state and local capital taxes will yield small increases or at worst modest decreases in land values in many states – despite

the fact that land owners will pay a larger share of overall state and local taxes.

As is evident throughout, forecasting the impact of large tax reforms of the type that are analyzed in this paper is difficult because certain underlying elasticities which are key to obtaining accurate results have not been estimated precisely in the literature. For this reason, obtaining better estimates of such elasticities in different contexts is of great importance for researchers interested in tax reforms of any kind – including reforms that involve increased use of taxes on unimproved land rents. Our hope is that, for now, we have – if anything – erred on the conservative end of our elasticity assumptions in order to insure that the positive impact of land rent taxes is not overstated. Future research can also advance the literature by modeling economies in finer detail, recognizing the heterogeneities in land, labor and capital that are glanced over in the current analysis. While we think that the current approach has successfully captured first order efficiency effects as well as first order distributional implications of increased state and local reliance on land rent taxes, important second order distributional issues are likely to be important as well. Some of these – as they relate to heterogeneity in land types within states – have been discussed in more detail in Section 7, and analogous other distributional issues arising from heterogeneity in labor and capital are likely to arise as well. Finally, it should be pointed out again that results involving specific tax reforms rely on assumptions regarding the incidence of taxes – assumptions that, if not correct, would alter the predictions. For instance, while we have taken the dominant view of property taxes as taxes on capital (see, for example, Zodrow (2001)), an alternative view has been espoused by scholars such as Fischel (2001) who argues that property taxation as practiced in the U.S. is closer to land value taxation than to taxation of all capital. Under such a view, of course, tax reforms

eliminating the property tax in favor of an explicit land rent tax would have little impact. Similarly, it should be noted that the current analysis has simplified tax systems to be proportional for each income category (labor, capital and land) which causes marginal and average tax rates faced by each factor to be the same. In some contexts, progressivity in rates may alter some of the predictions. Despite all these caveats, however, the available evidence on the prospects for increased use of land rent taxes in the states continues to look promising.

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TABLE 1: Income Sources by State

	Per Capita Labor Income	Per Capita Capital Income	Per Capita Land Income	Farm Income/ Land Inc.	Labor Income/ Total Inc.	Capital Income/ Total Inc.	Land Income/ Total Inc.
Alabama	$13,680	$3,419	$670	0.2638	0.7699	0.1924	0.0377
Alaska	$20,615	$4,364	$656	0.0406	0.8042	0.1702	0.0256
Arizona	$14,195	$4,170	$746	0.1945	0.7428	0.2182	0.0391
Arkansas	$12,870	$3,199	$861	0.4644	0.7602	0.1890	0.0509
California	$17,587	$4,722	$818	0.1680	0.7605	0.2042	0.0354
Colorado	$18,541	$4,701	$1,002	0.3232	0.7648	0.1939	0.0413
Connecticut	$22,093	$5,921	$893	0.0440	0.7643	0.2048	0.0309
Delaware	$20,477	$4,951	$843	0.1529	0.7795	0.1885	0.0321
Florida	$14,292	$6,220	$996	0.0995	0.6645	0.2892	0.0463
Georgia	$16,820	$3,626	$657	0.2041	0.7971	0.1718	0.0311
Hawaii	$18,850	$4,694	$853	0.2064	0.7727	0.1924	0.0350
Idaho	$13,905	$3,757	$1,161	0.5335	0.7387	0.1996	0.0617
Illinois	$18,571	$5,000	$1,013	0.2882	0.7554	0.2034	0.0412
Indiana	$15,616	$3,900	$886	0.3649	0.7654	0.1912	0.0434
Iowa	$14,672	$4,263	$1,732	0.6450	0.7099	0.2063	0.0838
Kansas	$15,195	$4,290	$1,235	0.4993	0.7334	0.2070	0.0596
Kentucky	$13,432	$3,339	$782	0.3846	0.7652	0.1902	0.0446
Louisiana	$13,428	$3,196	$593	0.2222	0.7800	0.1856	0.0344
Maine	$13,599	$3,792	$617	0.1134	0.7552	0.2106	0.0342
Maryland	$17,140	$4,943	$795	0.1029	0.7492	0.2161	0.0347
Massachusetts	$20,726	$4,982	$745	0.0359	0.7835	0.1883	0.0282
Michigan	$17,592	$4,089	$692	0.1481	0.7863	0.1828	0.0309
Minnesota	$17,902	$4,924	$1,104	0.3570	0.7481	0.2058	0.0461
Mississippi	$11,582	$2,624	$616	0.3856	0.7814	0.1770	0.0416
Missouri	$15,854	$4,408	$983	0.3533	0.7463	0.2075	0.0463
Montana	$12,198	$4,174	$1,792	0.6640	0.6716	0.2298	0.0986
Nebraska	$16,002	$4,634	$1,746	0.6173	0.7150	0.2070	0.0780
Nevada	$18,835	$5,487	$889	0.1100	0.7471	0.2177	0.0353
New Hampshire	$16,274	$4,568	$708	0.0691	0.7552	0.2120	0.0328
New Jersey	$20,190	$5,205	$792	0.0526	0.7710	0.1988	0.0303
New Mexico	$13,167	$3,529	$827	0.3849	0.7514	0.2014	0.0472
New York	$20,019	$5,139	$772	0.0399	0.7721	0.1982	0.0298
North Carolina	$16,012	$3,932	$726	0.2185	0.7747	0.1902	0.0351
North Dakota	$13,235	$3,992	$2,051	0.7193	0.6865	0.2071	0.1064
Ohio	$16,188	$4,253	$768	0.2014	0.7633	0.2005	0.0362
Oklahoma	$13,291	$3,480	$874	0.4259	0.7533	0.1972	0.0495
Oregon	$15,611	$5,179	$1,067	0.2999	0.7142	0.2370	0.0488
Pennsylvania	$16,240	$4,405	$720	0.1184	0.7601	0.2062	0.0337
Rhode Island	$15,579	$4,420	$657	0.0300	0.7542	0.2140	0.0318
South Carolina	$13,741	$3,360	$595	0.1856	0.7765	0.1899	0.0336
South Dakota	$13,602	$4,344	$1,899	0.6701	0.6854	0.2189	0.0957
Tennessee	$16,161	$3,304	$707	0.3258	0.8012	0.1638	0.0350
Texas	$16,281	$3,442	$746	0.3351	0.7954	0.1682	0.0365
Utah	$14,388	$3,183	$669	0.3137	0.7888	0.1745	0.0367
Vermont	$14,613	$4,379	$829	0.2382	0.7373	0.2209	0.0418
Virginia	$17,369	$4,559	$801	0.1793	0.7642	0.2006	0.0352
Washington	$16,957	$4,494	$848	0.2357	0.7604	0.2015	0.0380
West Virginia	$11,373	$2,970	$552	0.2247	0.7635	0.1994	0.0371
Wisconsin	$15,862	$4,303	$837	0.2587	0.7553	0.2049	0.0399
Wyoming	$14,716	$5,030	$1,675	0.5670	0.6870	0.2348	0.0782
US	$16,683	$4,424	$837	0.2382	0.7603	0.2016	0.0382

TABLE 2: State and Local Tax Structures

	Per Capita Property Tax	Per Capita Sales Tax	Per Capita Personal Income Tax	Per Capita Corporate Income Tax	Per Capita "Other" Tax	Per Capita Total State & Local Tax
Alabama	$193.70	$821.80	$335.64	$51.17	$182.34	$1,584.64
Alaska	$1,073.16	$356.68	$0.00	$292.96	$1,528.69	$3,251.49
Arizona	$633.02	$921.59	$327.03	$70.41	$108.09	$2,060.14
Arkansas	$251.11	$843.86	$386.56	$74.31	$104.78	$1,660.62
California	$655.74	$875.50	$557.18	$147.12	$164.01	$2,399.54
Colorado	$709.62	$812.48	$515.20	$39.07	$119.26	$2,195.63
Connecticut	$1,341.35	$1,014.94	$685.06	$214.99	$195.10	$3,451.44
Delaware	$365.22	$296.45	$801.96	$215.97	$772.89	$2,452.50
Florida	$775.48	$1,095.79	$0.00	$66.99	$211.85	$2,150.11
Georgia	$612.76	$793.93	$498.08	$72.53	$98.53	$2,075.84
Hawaii	$529.43	$1,640.16	$815.44	$57.99	$139.68	$3,182.70
Idaho	$498.43	$661.13	$484.14	$77.31	$184.15	$1,905.16
Illinois	$942.71	$850.03	$425.26	$103.43	$125.37	$2,446.81
Indiana	$734.37	$585.45	$586.06	$137.88	$60.71	$2,104.47
Iowa	$787.33	$718.88	$537.93	$61.35	$181.37	$2,286.85
Kansas	$715.94	$839.22	$461.67	$98.53	$165.40	$2,280.76
Kentucky	$316.29	$741.88	$558.13	$69.80	$229.83	$1,915.92
Louisiana	$297.49	$918.52	$225.88	$50.64	$222.42	$1,714.96
Maine	$947.15	$721.22	$496.89	$74.34	$116.80	$2,356.40
Maryland	$720.17	$697.77	$976.98	$63.71	$188.88	$2,647.51
Massachusetts	$981.31	$593.20	$938.60	$175.34	$136.68	$2,825.12
Michigan	$1,031.19	$635.24	$503.70	$225.12	$113.55	$2,508.80
Minnesota	$792.36	$853.35	$749.04	$119.83	$195.78	$2,710.35
Mississippi	$385.85	$849.23	$236.97	$62.38	$105.30	$1,639.73
Missouri	$432.64	$783.85	$447.15	$47.40	$137.59	$1,848.64
Montana	$821.76	$279.28	$397.75	$79.25	$344.56	$1,922.60
Nebraska	$837.61	$795.16	$437.67	$69.20	$133.67	$2,273.31
Nevada	$490.52	$1,418.34	$0.00	$0.00	$338.80	$2,247.67
New Hampshire	$1,431.07	$423.14	$31.40	$125.79	$160.96	$2,172.36
New Jersey	$1,471.72	$874.66	$564.86	$136.21	$143.82	$3,191.27
New Mexico	$258.89	$1,085.21	$343.22	$72.85	$307.05	$2,067.21
New York	$1,247.26	$1,026.87	$1,108.55	$308.37	$167.12	$3,858.16
North Carolina	$455.18	$793.04	$596.82	$102.61	$128.80	$2,076.44
North Dakota	$581.43	$821.02	$213.33	$111.31	$290.30	$2,017.38
Ohio	$625.54	$712.92	$655.87	$58.50	$141.06	$2,193.88
Oklahoma	$301.48	$803.55	$402.65	$49.67	$284.35	$1,841.70
Oregon	$802.02	$212.65	$822.52	$83.95	$305.11	$2,226.25
Pennsylvania	$671.13	$695.53	$555.88	$123.40	$297.45	$2,343.39
Rhode Island	$1,060.21	$731.35	$533.96	$80.20	$112.60	$2,518.33
South Carolina	$510.03	$651.07	$413.78	$59.20	$149.07	$1,783.16
South Dakota	$718.46	$847.74	$0.17	$50.19	$184.84	$1,801.41
Tennessee	$395.30	$1,072.14	$18.91	$80.51	$170.03	$1,736.90
Texas	$743.14	$1,002.60	$0.00	$0.00	$248.26	$1,994.00
Utah	$474.33	$768.35	$467.88	$63.32	$78.81	$1,852.70
Vermont	$1,046.34	$690.49	$490.75	$59.92	$182.00	$2,469.50
Virginia	$665.02	$669.28	$577.52	$46.46	$187.20	$2,145.47
Washington	$767.67	$1,548.52	$0.00	$0.00	$238.13	$2,554.32
West Virginia	$359.69	$779.45	$367.76	$101.39	$232.11	$1,840.40
Wisconsin	$994.12	$742.71	$708.33	$105.37	$119.34	$2,669.87
Wyoming	$935.58	$700.32	$0.00	$0.00	$866.94	$2,502.85
Avg. US State	$748.63	$849.65	$488.69	$107.41	$181.22	$2,375.60

TABLE 3: Implicit Tax Rates on Labor, Capital and Land

	State and Local Rates			Federal, State and Local Rates		
	Capital	Labor	Land	Capital	Labor	Land
Alabama	0.1359	0.0754	0.1321	0.3787	0.3001	0.2446
Alaska	0.3497	0.0735	0.3195	0.5924	0.2983	0.4320
Arizona	0.2125	0.0710	0.2228	0.4553	0.2957	0.3354
Arkansas	0.1594	0.0789	0.1574	0.4022	0.3036	0.2699
California	0.2150	0.0690	0.2079	0.4578	0.2938	0.3205
Colorado	0.1868	0.0597	0.2106	0.4296	0.2844	0.3232
Connecticut	0.2942	0.0656	0.2921	0.5370	0.2903	0.4046
Delaware	0.1761	0.0712	0.1450	0.4188	0.2959	0.2576
Florida	0.1763	0.0608	0.1855	0.4191	0.2855	0.2980
Georgia	0.2243	0.0659	0.2349	0.4671	0.2906	0.3475
Hawaii	0.2110	0.1064	0.2192	0.4538	0.3311	0.3317
Idaho	0.1829	0.0706	0.2033	0.4256	0.2953	0.3159
Illinois	0.2280	0.0570	0.2455	0.4708	0.2817	0.3581
Indiana	0.2413	0.0604	0.2487	0.4841	0.2851	0.3612
Iowa	0.1936	0.0696	0.2543	0.4364	0.2943	0.3668
Kansas	0.2126	0.0708	0.2377	0.4553	0.2955	0.3502
Kentucky	0.1806	0.0872	0.1819	0.4234	0.3119	0.2944
Louisiana	0.1711	0.0794	0.1725	0.4138	0.3041	0.2850
Maine	0.3029	0.0741	0.3239	0.5457	0.2988	0.4365
Maryland	0.2166	0.0815	0.2271	0.4594	0.3062	0.3397
Massachusetts	0.2658	0.0631	0.2601	0.5086	0.2878	0.3726
Michigan	0.3206	0.0560	0.3082	0.5633	0.2807	0.4207
Minnesota	0.2243	0.0751	0.2361	0.4671	0.2999	0.3486
Mississippi	0.2167	0.0804	0.2274	0.4595	0.3051	0.3400
Missouri	0.1514	0.0644	0.1626	0.3942	0.2891	0.2751
Montana	0.1876	0.0562	0.2531	0.4304	0.2810	0.3657
Nebraska	0.1887	0.0611	0.2418	0.4314	0.2858	0.3544
Nevada	0.1446	0.0697	0.1591	0.3874	0.2944	0.2716
New Hampshire	0.3208	0.0286	0.3418	0.5636	0.2533	0.4544
New Jersey	0.3263	0.0605	0.3432	0.5691	0.2852	0.4558
New Mexico	0.1758	0.0990	0.1724	0.4186	0.3238	0.2849
New York	0.3551	0.0888	0.3315	0.5979	0.3135	0.4441
North Carolina	0.1940	0.0735	0.1892	0.4368	0.2982	0.3018
North Dakota	0.1674	0.0687	0.2144	0.4102	0.2934	0.3269
Ohio	0.2055	0.0712	0.2183	0.4482	0.2959	0.3308
Oklahoma	0.1636	0.0845	0.1711	0.4064	0.3092	0.2837
Oregon	0.2005	0.0613	0.2162	0.4433	0.2860	0.3287
Pennsylvania	0.2280	0.0725	0.2249	0.4707	0.2972	0.3374
Rhode Island	0.2891	0.0667	0.3066	0.5319	0.2914	0.4192
South Carolina	0.2112	0.0686	0.2204	0.4539	0.2933	0.3330
South Dakota	0.1567	0.0520	0.2174	0.3995	0.2768	0.3300
Tennessee	0.1809	0.0625	0.1822	0.4237	0.2872	0.2947
Texas	0.2302	0.0611	0.2770	0.4730	0.2858	0.3896
Utah	0.2097	0.0721	0.2211	0.4525	0.2968	0.3337
Vermont	0.2762	0.0688	0.3077	0.5189	0.2935	0.4203
Virginia	0.1935	0.0631	0.2090	0.4363	0.2878	0.3215
Washington	0.2187	0.0801	0.2509	0.4615	0.3048	0.3635
West Virginia	0.2253	0.0926	0.2137	0.4681	0.3173	0.3263
Wisconsin	0.2854	0.0748	0.3058	0.5281	0.2995	0.4184
Wyoming	0.1972	0.0732	0.2592	0.4400	0.2979	0.3717
Average U.S. State	0.2311	0.0693	0.2359	0.4738	0.2940	0.3485

TABLE 4A: Calibrated Production Function Parameters for Different Elasticities of Substitutions (between Capital and Non-Farm Land)

	High Elasticity (0.75)		Medium Elasticity (0.5)		Low Elasticity (0.25)	
	α	β	α	β	α	β
Alabama	0.4161	0.8897	0.4214	0.9285	0.4328	0.9837
Alaska	0.2285	0.8928	0.2292	0.8710	0.2317	0.7858
Arizona	0.4633	0.8994	0.4696	0.9375	0.4829	0.9878
Arkansas	0.4060	0.8552	0.4106	0.8994	0.4213	0.9718
California	0.4102	0.8980	0.4133	0.9274	0.4193	0.9764
Colorado	0.3979	0.8738	0.4015	0.9101	0.4084	0.9711
Connecticut	0.3585	0.9020	0.3589	0.9146	0.3602	0.9447
Delaware	0.3755	0.8993	0.3779	0.9256	0.3827	0.9723
Florida	0.7658	0.9465	0.8305	0.9943	0.8904	0.9999
Georgia	0.2995	0.8767	0.2996	0.8864	0.3001	0.9119
Hawaii	0.3755	0.8851	0.3769	0.9081	0.3806	0.9555
Idaho	0.4404	0.8423	0.4470	0.8971	0.4629	0.9783
Illinois	0.4054	0.8795	0.4085	0.9120	0.4155	0.9694
Indiana	0.3623	0.8613	0.3635	0.8851	0.3666	0.9380
Iowa	0.4805	0.8098	0.4906	0.8850	0.5158	0.9842
Kansas	0.4462	0.8482	0.4523	0.8989	0.4667	0.9766
Kentucky	0.3935	0.8655	0.3966	0.9009	0.4034	0.9613
Louisiana	0.3720	0.8865	0.3742	0.9145	0.3796	0.9665
Maine	0.3750	0.8925	0.3756	0.9071	0.3772	0.9415
Maryland	0.4500	0.9056	0.4548	0.9384	0.4652	0.9854
Massachusetts	0.3231	0.9003	0.3233	0.9100	0.3239	0.9344
Michigan	0.2807	0.8840	0.2808	0.8786	0.2809	0.8612
Minnesota	0.4216	0.8719	0.4253	0.9085	0.4331	0.9708
Mississippi	0.3315	0.8506	0.3320	0.8682	0.3334	0.9118
Missouri	0.4688	0.8847	0.4786	0.9351	0.4985	0.9916
Montana	0.5724	0.8407	0.5997	0.9384	0.6557	0.9990
Nebraska	0.4784	0.8226	0.4889	0.8951	0.5143	0.9866
Nevada	0.5018	0.9127	0.5133	0.9555	0.5371	0.9959
New Hampshire	0.3628	0.8977	0.3634	0.9117	0.3649	0.9447
New Jersey	0.3206	0.8937	0.3206	0.8961	0.3207	0.9032
New Mexico	0.4371	0.8735	0.4426	0.9164	0.4551	0.9803
New York	0.3003	0.8983	0.3004	0.8907	0.3008	0.8650
North Carolina	0.3757	0.8881	0.3779	0.9150	0.3829	0.9656
North Dakota	0.5198	0.8057	0.5372	0.9038	0.5788	0.9953
Ohio	0.4047	0.8910	0.4079	0.9218	0.4144	0.9740
Oklahoma	0.4308	0.8652	0.4367	0.9117	0.4501	0.9801
Oregon	0.5491	0.9007	0.5622	0.9540	0.5915	0.9972
Pennsylvania	0.4075	0.9014	0.4101	0.9282	0.4161	0.9748
Rhode Island	0.3912	0.9035	0.3925	0.9219	0.3953	0.9603
South Carolina	0.3638	0.8880	0.3654	0.9114	0.3691	0.9586
South Dakota	0.5512	0.8374	0.5769	0.9347	0.6293	0.9986
Tennessee	0.2985	0.8609	0.2989	0.8760	0.3000	0.9139
Texas	0.2940	0.8469	0.2941	0.8545	0.2943	0.8755
Utah	0.3208	0.8631	0.3213	0.8794	0.3226	0.9192
Vermont	0.4330	0.8846	0.4360	0.9151	0.4431	0.9698
Virginia	0.4104	0.8945	0.4142	0.9270	0.4226	0.9788
Washington	0.4032	0.8825	0.4059	0.9129	0.4124	0.9679
West Virginia	0.3912	0.8884	0.3931	0.9138	0.3978	0.9631
Wisconsin	0.3756	0.8751	0.3764	0.8934	0.3785	0.9359
Wyoming	0.5651	0.8584	0.5881	0.9397	0.6338	0.9981
Average U.S.	0.3954	0.8855	0.3977	0.9135	0.4033	0.9658

TABLE 4B: Relationship of Production Function Parameters to Underlying Economic Variables

(t-statistics in parenthesis)

	Dependent Variable = α			Dependent Variable = β		
	High Elasticity	**Medium Elasticity**	**Low Elasticity**	**High Elasticity**	**Medium Elasticity**	**Low Elasticity**
Intercept	1.0992 (19.30)	1.1512 (12.39)	1.5386 (12.77)	-0.6182 (-10.01)	0.4011 (5.02)	1.2543 (7.59)
Fraction Labor Income	-1.4475 (-24.93)	-1.5749 (-16.63)	-2.0314 (-16.53)	1.3957 (22.16)	0.3089 (3.80)	-0.5955 (-3.53)
Fraction Capital Income	2.3196 (25.67)	2.6057 (17.68)	2.5620 (13.40)	2.2826 (23.29)	1.5273 (12.06)	0.6311 (2.41)
State Income divided by 10,000	0.0615 (12.29)	0.0683 (8.37)	0.0783 (7.40)	0.0131 (2.41)	0.0323 (4.60)	0.0505 (3.48)
Fraction Taxes from Sales Tax	0.0084 (0.60)	0.0097 (0.43)	-0.0106 (-0.36)	-0.0284 (-1.88)	-0.0329 (-1.69)	0.0633 (1.57)
Fraction of Taxes from Pers. Inc. Tax	-0.0123 (-0.96)	-0.0406 (-1.94)	-0.0799 (-2.95)	-0.0335 (-2.41)	-0.0132 (-0.73)	0.1640 (4.41)
Fraction Taxes from Corp. Inc. Tax	-0.2202 (-3.80)	-0.1419 (-1.50)	-0.1412 (-1.15)	0.1019 (1.62)	-0.0645 (-0.79)	-0.3744 (-2.23)
Fraction of Taxes from Property Tax	-0.1983 (-14.00)	-0.2201 (-9.53)	-0.2603 (-8.68)	-0.0525 (-3.42)	-0.0958 (-4.82)	-0.0543 (-1.32)
Tax Revenue divided by 1,000	-0.0560 (-16.68)	-0.0619 (-11.30)	-0.0692 (-9.75)	-0.0067 (-1.85)	-0.0231 (-4.92)	-0.0465 (-4.78)
R-Square	0.995702	0.990619	0.987828	0.942017	0.886864	0.832142

TABLE 5: Revenue Neutral Tax Reform Reducing/Eliminating State Taxes

$\sigma_{k\ell} = 0.75$, $\sigma_{kn} = 0.5$, $\varepsilon_k = \infty$, $\varepsilon_n = 1$

		$\%\Delta k$	$\%\Delta y$	$\%\Delta n$	$\%\Delta p$	$\%\Delta t_\ell$
Cut in Implicit State and Local Taxes on Capital	20%	7.95%	2.11%	3.18%	1.28%	1.81%
	40%	15.70%	4.01%	6.07%	-1.34%	10.00%
	60%	23.26%	5.73%	8.71%	-7.10%	23.00%
	80%	30.65%	7.29%	11.14%	-15.38%	39.67%
	100%	37.88%	8.73%	13.38%	-25.72%	59.23%
Cut in Implicit State and Local Taxes on Labor	20%	1.88%	1.86%	1.80%	-20.88%	42.83%
	40%	3.75%	3.71%	3.60%	-43.64%	86.85%
	60%	5.63%	5.56%	5.39%	-68.25%	131.94%
	80%	7.50%	7.40%	7.18%	-94.71%	178.00%
	100%	9.37%	9.25%	8.97%	-123.02%	224.92%
Cut in State and Local Sales Taxes	20%	2.41%	1.41%	1.57%	-11.11%	23.84%
	40%	4.85%	2.82%	3.14%	-23.37%	48.88%
	60%	7.31%	4.23%	4.71%	-36.76%	75.05%
	80%	9.79%	5.65%	6.28%	-51.30%	102.30%
	100%	12.29%	7.06%	7.85%	-66.99%	130.56%
Cut in State and Local Personal Income Taxes	20%	1.38%	0.81%	0.90%	-6.30%	13.65%
	40%	2.76%	1.62%	1.80%	-12.16%	27.70%
	60%	4.16%	2.44%	2.71%	-20.03%	42.14%
	80%	5.56%	3.25%	3.61%	-27.46%	56.97%
	100%	6.97%	4.06%	4.51%	-35.27%	72.16%
Cut in State and Local Corporate Income Taxes	20%	0.85%	0.23%	0.35%	0.35%	-0.17%
	40%	1.69%	0.46%	0.70%	0.64%	-0.25%
	60%	2.53%	0.69%	1.04%	0.88%	-0.24%
	80%	3.37%	0.92%	1.38%	1.08%	-0.14%
	100%	4.21%	1.14%	1.71%	1.22%	0.04%
Cut in State and Local Property Taxes	20%	4.76%	1.28%	1.93%	1.29%	0.20%
	40%	9.45%	2.49%	3.75%	1.05%	2.94%
	60%	14.07%	3.62%	5.48%	-0.50%	7.81%
	80%	18.62%	4.68%	7.11%	-3.21%	14.48%
	100%	23.10%	5.69%	8.65%	-6.94%	22.67%

TABLE 6: Calibrated Values for Different Elasticity Assumptions
($\sigma_{kn} = 0.5$)

		$\sigma_{k\ell} = 0.25$			$\sigma_{k\ell} = 0.75$		
ε_k		$\varepsilon_n = 0$	$\varepsilon_n = 1$	$\varepsilon_n = 5$	$\varepsilon_n = 0$	$\varepsilon_n = 1$	$\varepsilon_n = 5$
0	α	0.2234	0.3239	0.4876	0.2234	0.3239	0.4876
	β	0.9217	0.8921	0.8492	0.9217	0.8921	0.8493
1	α	0.2869	0.3494	0.4796	0.2845	0.3487	0.4794
	β	0.9632	0.9251	0.8031	0.9118	0.8895	0.8476
5	α	0.3527	0.3791	0.4682	0.3426	0.3756	0.4656
	β	0.9819	0.9512	0.7194	0.9032	0.8871	0.8448
∞	α	0.4003	0.4033	0.4593	0.3806	**0.3954**	0.4497
	β	0.9889	0.9658	0.6386	0.8989	**0.8855**	0.8418

TABLE 7A: Sensitivity Analysis of Results for Eliminating Average Implicit State and Local Taxes on Capital (σ_{kn} = 0.5)

		$\sigma_{k\ell}$ = 0.25			$\sigma_{k\ell}$ = 0.75		
ε_k		ε_n = 0	ε_n = 1	ε_n = 5	ε_n = 0	ε_n = 1	ε_n = 5
	%Δ k	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	%Δ n	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0	%Δ y	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	%Δ p	-417.37%	-293.15%	-199.67%	-417.37%	-293.15%	-199.82%
	%Δ t_ℓ	780.26%	548.03%	373.27%	780.26%	548.03%	373.56%
	%Δ k	13.49%	15.55%	18.47%	15.35%	18.77%	25.46%
	%Δ n	0.00%	3.90%	10.16%	0.00%	4.76%	14.38%
1	%Δ y	2.46%	5.91%	11.23%	2.81%	7.22%	15.92%
	%Δ p	-228.45%	-114.86%	13.34%	-262.49%	-141.22%	17.29%
	%Δ t_ℓ	366.34%	205.85%	60.25%	497.55%	260.41%	3.60%
	%Δ k	18.36%	22.47%	29.53%	23.17%	31.52%	56.32%
	%Δ n	0.00%	5.34%	15.54%	0.00%	7.50%	30.04%
5	%Δ y	3.18%	8.11%	17.22%	4.02%	11.46%	33.50%
	%Δ p	-151.81%	-40.53%	145.77%	-192.92%	-59.68%	275.92%
	%Δ t_ℓ	253.54%	121.11%	-25.91%	366.28%	116.86%	-309.33%
	%Δ k	19.89%	24.89%	34.80%	26.61%	**37.88%**	79.92%
	%Δ n	0.00%	5.78%	18.02%	0.00%	**8.73%**	41.16%
∞	%Δ y	3.38%	8.79%	19.99%	4.50%	**13.38%**	46.11%
	%Δ p	-121.48%	-14.64%	215.75%	-163.47%	**-25.72%**	486.22%
	%Δ t_ℓ	214.01%	96.28%	-56.80%	309.85%	**59.23%**	-508.67%

TABLE 7B: Sensitivity Analysis of Results for Eliminating Average Implicit State and Local Taxes on Labor (σ_{kn} = 0.5)

		$\sigma_{k\ell}$ = 0.25			$\sigma_{k\ell}$ = 0.75		
ε_k		ε_n = 0	ε_n = 1	ε_n = 5	ε_n = 0	ε_n = 1	ε_n = 5
	%Δ k	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	%Δ n	0.00%	6.58%	14.30%	0.00%	6.58%	14.30%
0	%Δ y	0.00%	5.00%	10.54%	0.00%	5.00%	10.54%
	%Δ p	-472.25%	-218.03%	-50.46%	-472.25%	-217.39%	-50.51%
	%Δ t_ℓ	882.84%	387.07%	111.15%	882.84%	386.01%	111.22%
	%Δ k	0.00%	4.10%	10.35%	0.00%	4.80%	13.76%
	%Δ n	0.00%	7.79%	21.31%	0.00%	8.00%	23.75%
1	%Δ y	0.00%	6.79%	18.02%	0.00%	7.10%	20.63%
	%Δ p	-363.86%	-165.57%	72.92%	-363.91%	-170.47%	79.68%
	%Δ t_ℓ	680.22%	286.48%	-7.16%	680.30%	304.70%	-59.76%
	%Δ k	0.00%	6.01%	17.27%	0.00%	7.88%	30.35%
	%Δ n	0.00%	8.31%	25.77%	0.00%	8.86%	34.57%
5	%Δ y	0.00%	7.56%	22.81%	0.00%	8.38%	32.28%
	%Δ p	-296.04%	-135.70%	161.75%	-295.54%	-139.26%	241.23%
	%Δ t_ℓ	553.43%	238.62%	-56.56%	552.50%	251.98%	-231.21%
	%Δ k	0.00%	6.71%	20.91%	0.00%	**9.37%**	43.48%
	%Δ n	0.00%	8.48%	28.12%	0.00%	**9.25%**	42.86%
∞	%Δ y	0.00%	7.82%	25.33%	0.00%	**8.97%**	41.28%
	%Δ p	-261.82%	-121.01%	215.29%	-261.38%	**-123.02%**	381.68%
	%Δ t_ℓ	489.46%	216.89%	-79.52%	488.64%	**224.92%**	-357.52%

TABLE 7C: Sensitivity Analysis of Results for Eliminating Average State Sales Taxes
($\sigma_{kn} = 0.5$)

		$\sigma_{k\ell} = 0.25$			$\sigma_{k\ell} = 0.75$		
ε_k		$\varepsilon_n = 0$	$\varepsilon_n = 1$	$\varepsilon_n = 5$	$\varepsilon_n = 0$	$\varepsilon_n = 1$	$\varepsilon_n = 5$
	%Δ k	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	%Δ n	0.00%	3.71%	8.04%	0.00%	3.71%	8.04%
0	%Δ y	0.00%	2.84%	6.01%	0.00%	2.84%	6.01%
	%Δ p	-333.83%	-169.79%	-60.69%	-333.83%	-169.79%	-60.69%
	%Δ t_ℓ	624.07%	310.32%	121.56%	624.07%	310.32%	121.56%
	%Δ k	2.56%	5.35%	9.61%	2.85%	6.27%	12.70%
	%Δ n	0.00%	5.22%	14.13%	0.00%	5.49%	16.19%
1	%Δ y	0.51%	5.09%	12.60%	0.57%	5.50%	14.84%
	%Δ p	-246.47%	-108.88%	53.07%	-251.53%	-115.27%	59.01%
	%Δ t_ℓ	444.92%	200.55%	-4.05%	471.33%	213.44%	-52.80%
	%Δ k	3.49%	7.83%	15.98%	4.21%	10.32%	27.49%
	%Δ n	0.00%	5.87%	17.97%	0.00%	6.56%	25.23%
5	%Δ y	0.69%	6.06%	16.78%	0.83%	7.11%	24.71%
	%Δ p	-196.09%	-78.40%	133.80%	-202.13%	-82.19%	203.33%
	%Δ t_ℓ	352.89%	155.77%	-58.24%	378.91%	156.86%	-226.38%
	%Δ k	3.80%	8.75%	19.30%	4.79%	**12.29%**	38.81%
	%Δ n	0.00%	6.09%	19.98%	0.00%	**7.06%**	31.96%
∞	%Δ y	0.75%	6.39%	18.96%	0.94%	**7.85%**	32.09%
	%Δ p	-171.58%	-65.31%	181.97%	-177.95%	**-66.99%**	325.27%
	%Δ t_ℓ	309.87%	137.90%	-83.69%	333.53%	**130.56%**	-353.60%

TABLE 7D: Sensitivity Analysis of Results for Eliminating Average State and Local Personal Income Taxes ($\sigma_{kn} = 0.5$)

		$\sigma_{k\ell} = 0.25$			$\sigma_{k\ell} = 0.75$		
ε_k		$\varepsilon_n = 0$	$\varepsilon_n = 1$	$\varepsilon_n = 5$	$\varepsilon_n = 0$	$\varepsilon_n = 1$	$\varepsilon_n = 5$
	%Δ k	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	%Δ n	0.00%	2.16%	4.67%	0.00%	2.16%	4.67%
0	%Δ y	0.00%	1.66%	3.52%	0.00%	1.66%	3.52%
	%Δ p	-192.40%	-95.82%	-31.99%	-192.40%	-95.82%	-31.99%
	%Δ t_ℓ	359.67%	179.37%	68.31%	359.67%	179.37%	68.31%
	%Δ k	1.47%	3.08%	5.59%	1.63%	3.59%	7.23%
	%Δ n	0.00%	3.02%	8.14%	0.00%	3.17%	9.19%
1	%Δ y	0.30%	2.95%	7.30%	0.33%	3.17%	8.45%
	%Δ p	-141.82%	-60.34%	34.24%	-144.58%	-63.54%	37.92%
	%Δ t_ℓ	262.48%	120.94%	-10.29%	270.47%	121.69%	-40.33%
	%Δ k	2.00%	4.52%	9.40%	2.41%	5.87%	15.23%
	%Δ n	0.00%	3.40%	10.46%	0.00%	3.78%	14.08%
5	%Δ y	0.40%	3.52%	9.84%	0.48%	4.08%	13.80%
	%Δ p	-112.77%	-42.65%	83.12%	-116.02%	-44.28%	119.96%
	%Δ t_ℓ	209.75%	94.91%	-53.63%	216.98%	87.85%	-154.82%
	%Δ k	2.18%	5.06%	11.47%	2.74%	**6.97%**	21.14%
	%Δ n	0.00%	3.54%	11.73%	0.00%	**4.06%**	17.66%
∞	%Δ y	0.43%	3.72%	11.23%	0.54%	**4.51%**	17.74%
	%Δ p	-98.67%	-35.11%	113.47%	102.08%	**-35.27%**	188.54%
	%Δ t_ℓ	184.57%	84.11%	-77.12%	190.84%	**72.16%**	-243.24%

TABLE 7E: Sensitivity Analysis of Results for Eliminating Average State and Local Corporate Income Taxes ($\sigma_{kn} = 0.5$)

		$\sigma_{k\ell} = 0.25$			$\sigma_{k\ell} = 0.75$		
ε_k		$\varepsilon_n = 0$	$\varepsilon_n = 1$	$\varepsilon_n = 5$	$\varepsilon_n = 0$	$\varepsilon_n = 1$	$\varepsilon_n = 5$
	%Δ k	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	%Δ n	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0	%Δ y	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	%Δ p	-43.91%	-30.84%	-21.02%	-43.91%	-30.84%	-21.02%
	%Δ t_ℓ	82.08%	57.65%	39.30%	82.08%	57.65%	39.30%
	%Δ k	1.62%	1.88%	2.26%	1.80%	2.18%	2.88%
	%Δ n	0.00%	0.52%	1.34%	0.00%	0.60%	1.71%
1	%Δ y	0.33%	0.78%	1.48%	0.36%	0.90%	1.89%
	%Δ p	-25.94%	-11.03%	5.41%	-28.89%	-12.81%	6.88%
	%Δ t_ℓ	53.65%	28.92%	3.36%	53.69%	25.00%	-8.37%
	%Δ k	2.21%	2.76%	3.82%	2.65%	3.55%	5.88%
	%Δ n	0.00%	0.75%	2.27%	0.00%	0.97%	3.50%
5	%Δ y	0.44%	1.13%	2.50%	0.53%	1.45%	3.85%
	%Δ p	-17.99%	-2.27%	24.98%	-21.60%	-2.94%	38.29%
	%Δ t_ℓ	41.20%	17.28%	-20.47%	39.88%	7.38%	-59.99%
	%Δ k	2.41%	3.09%	4.68%	3.02%	**4.21%**	7.99%
	%Δ n	0.00%	0.84%	2.78%	0.00%	**1.14%**	4.76%
∞	%Δ y	0.48%	1.26%	3.07%	0.60%	**1.71%**	5.25%
	%Δ p	-14.67%	0.92%	37.19%	-18.40%	**1.22%**	63.65%
	%Δ t_ℓ	35.85%	13.17%	-34.71%	33.83%	**0.04%**	-100.60%

TABLE 7F: Sensitivity Analysis of Results for Eliminating the Average State and Local Property Taxes ($\sigma_{kn} = 0.5$)

		$\sigma_{k\ell} = 0.25$			$\sigma_{k\ell} = 0.75$		
ε_k	%Δ k	$\varepsilon_n = 0$	$\varepsilon_n = 1$	$\varepsilon_n = 5$	$\varepsilon_n = 0$	$\varepsilon_n = 1$	$\varepsilon_n = 5$
	%Δ y	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	%Δ n	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0	%Δ y	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	%Δ p	-248.62%	-174.62%	-119.03%	-248.62%	-174.62%	-119.03%
	%Δ t_ℓ	464.78%	326.45%	222.52%	464.78%	326.45%	222.52%
	%Δ k	8.49%	9.82%	11.74%	9.57%	11.65%	15.63%
	%Δ n	0.00%	2.56%	6.67%	0.00%	3.06%	9.03%
1	%Δ y	1.61%	3.86%	7.36%	1.83%	4.62%	9.97%
	%Δ p	-140.66%	-66.45%	16.56%	-159.45%	-79.67%	22.04%
	%Δ t_ℓ	249.81%	138.24%	32.30%	299.60%	150.11%	-16.36%
	%Δ k	11.58%	14.29%	19.18%	14.31%	19.32%	33.47%
	%Δ n	0.00%	3.59%	10.61%	0.00%	4.86%	18.69%
5	%Δ y	2.13%	5.43%	11.73%	2.63%	7.38%	20.75%
	%Δ p	-95.24%	-20.32%	106.80%	-118.10%	-28.38%	186.02%
	%Δ t_ℓ	180.00%	82.28%	-39.16%	221.44%	59.49%	-239.14%
	%Δ k	12.57%	15.91%	22.91%	16.37%	**23.10%**	46.67%
	%Δ n	0.00%	3.93%	12.55%	0.00%	**5.69%**	25.56%
∞	%Δ y	2.28%	5.95%	13.89%	2.96%	**8.65%**	28.45%
	%Δ p	-76.82%	-3.98%	157.54%	-100.33%	**-6.94%**	319.41%
	%Δ t_ℓ	153.62%	64.80%	-69.42%	187.57%	**22.67%**	-393.05%

TABLE 8A: Revenue Neutral Tax Reform Reducing/Eliminating Capital Taxes under High Elasticity Assumption

	% Δ in Capital	% Δ in Labor	% Δ in Output	% Δ Land Prices	% Δ in t_ℓ	% Δ in overall t_k	% Δ in state t_k
Alabama	18.97%	4.59%	6.97%	-17.50%	65.44%	-35.89%	-100.00%
Alaska	63.43%	11.60%	17.89%	-46.77%	64.22%	-59.02%	-100.00%
Arizona	35.47%	8.78%	13.45%	-20.92%	54.87%	-46.67%	-100.00%
Arkansas	22.70%	5.25%	7.98%	-12.00%	48.66%	-39.64%	-100.00%
California	34.60%	8.20%	12.55%	-28.11%	70.43%	-46.96%	-100.00%
Colorado	28.12%	6.52%	9.94%	-25.64%	64.19%	-43.48%	-100.00%
Connecticut	53.69%	11.85%	18.29%	-37.95%	63.28%	-54.79%	-100.00%
Delaware	25.58%	5.95%	9.06%	-28.57%	91.80%	-42.03%	-100.00%
Florida	33.91%	10.37%	15.94%	-8.53%	46.56%	-42.07%	-100.00%
Georgia	33.56%	6.98%	10.65%	-39.18%	78.91%	-48.01%	-100.00%
Hawaii	32.69%	7.45%	11.37%	-6.12%	24.17%	-46.50%	-100.00%
Idaho	27.51%	6.40%	9.75%	-10.58%	41.53%	-42.96%	-100.00%
Illinois	37.44%	8.67%	13.28%	-30.27%	65.08%	-48.43%	-100.00%
Indiana	39.09%	8.54%	13.08%	-28.10%	60.95%	-49.84%	-100.00%
Iowa	29.19%	6.68%	10.18%	-4.66%	28.92%	-44.36%	-100.00%
Kansas	34.20%	7.97%	12.19%	-10.70%	38.48%	-46.67%	-100.00%
Kentucky	26.64%	6.12%	9.32%	-12.48%	44.27%	-42.65%	-100.00%
Louisiana	24.56%	5.65%	8.59%	-21.77%	63.98%	-41.32%	-100.00%
Maine	57.27%	12.69%	19.63%	-17.57%	33.19%	-55.51%	-100.00%
Maryland	36.11%	8.88%	13.62%	-17.66%	46.76%	-47.15%	-100.00%
Massachusetts	44.08%	9.47%	14.53%	-50.26%	90.01%	-52.26%	-100.00%
Michigan	57.52%	11.38%	17.55%	-57.95%	83.75%	-56.90%	-100.00%
Minnesota	36.87%	8.60%	13.17%	-15.27%	43.70%	-48.02%	-100.00%
Mississippi	32.50%	6.88%	10.50%	-18.82%	47.49%	-47.16%	-100.00%
Missouri	22.49%	5.62%	8.54%	-16.94%	59.17%	-38.41%	-100.00%
Montana	29.29%	7.15%	10.91%	-3.22%	29.75%	-43.59%	-100.00%
Nebraska	28.60%	6.64%	10.13%	-7.74%	34.13%	-43.72%	-100.00%
Nevada	21.84%	5.74%	8.73%	-21.00%	67.90%	-37.33%	-100.00%
New Hampshire	62.78%	13.72%	21.27%	-85.17%	104.04%	-56.92%	-100.00%
New Jersey	61.99%	12.91%	19.98%	-46.40%	60.59%	-57.34%	-100.00%
New Mexico	26.56%	6.37%	9.71%	-6.14%	33.12%	-42.00%	-100.00%
New York	70.87%	14.30%	22.20%	10.61%	-1.91%	-59.39%	-100.00%
North Carolina	29.14%	6.69%	10.20%	-25.71%	69.28%	-44.41%	-100.00%
North Dakota	23.23%	5.34%	8.11%	-2.37%	29.68%	-40.81%	-100.00%
Ohio	32.29%	7.60%	11.62%	-25.63%	62.05%	-45.83%	-100.00%
Oklahoma	24.00%	5.71%	8.68%	-10.54%	42.73%	-40.26%	-100.00%
Oregon	34.74%	9.12%	13.98%	-15.98%	51.20%	-37.64%	-100.00%
Pennsylvania	37.57%	8.87%	13.60%	-27.57%	64.49%	-48.41%	-100.00%
Rhode Island	53.76%	12.62%	18.95%	-31.26%	51.96%	-54.35%	-100.00%
South Carolina	32.47%	7.33%	11.20%	-31.54%	71.21%	-46.51%	-100.00%
South Dakota	22.78%	5.54%	8.42%	-5.20%	32.64%	-39.22%	-100.00%
Tennessee	24.82%	5.15%	7.83%	-29.82%	78.47%	-42.70%	-100.00%
Texas	34.42%	6.94%	10.58%	-35.07%	60.93%	-48.67%	-100.00%
Utah	30.90%	6.54%	9.98%	-26.89%	61.98%	-46.34%	-100.00%
Vermont	51.52%	12.03%	18.58%	-15.72%	35.39%	-53.21%	-100.00%
Virginia	29.90%	7.12%	10.87%	-30.39%	73.33%	-44.35%	-100.00%
Washington	35.23%	8.19%	12.53%	-18.41%	43.14%	-47.39%	-100.00%
West Virginia	36.36%	8.38%	12.83%	-11.53%	37.45%	-48.13%	-100.00%
Wisconsin	51.63%	11.37%	17.53%	-16.33%	34.82%	-54.02%	-100.00%
Wyoming	32.89%	8.27%	12.65%	-1.93%	26.22%	-44.82%	-100.00%
Average U.S.	37.88%	8.73%	13.38%	-25.72%	59.23%	-48.75%	-100.00%

TABLE 8B: Revenue Neutral Tax Reform Reducing/Eliminating Capital Taxes under Medium Elasticity Assumption

	% Δ in Capital	% Δ in Labor	% Δ in Output	% Δ Land Prices	% Δ in t_ℓ	% Δ in overall t_k	% Δ in state t_k
Alabama	17.24%	4.18%	6.33%	-15.75%	81.88%	-35.89%	-100.00%
Alaska	58.86%	10.78%	16.59%	-41.10%	74.79%	-59.02%	-100.00%
Arizona	32.02%	7.93%	12.13%	-18.22%	71.38%	-46.67%	-100.00%
Arkansas	19.85%	4.59%	6.97%	-10.28%	65.98%	-39.64%	-100.00%
California	31.53%	7.48%	11.43%	-24.98%	85.66%	-46.96%	-100.00%
Colorado	25.11%	5.83%	8.87%	-22.53%	76.00%	-43.48%	-100.00%
Connecticut	49.29%	10.89%	16.77%	-33.10%	75.29%	-54.79%	-100.00%
Delaware	23.58%	5.49%	8.35%	-26.02%	108.31%	-42.03%	-100.00%
Florida	30.39%	9.30%	14.27%	-6.95%	68.94%	-42.07%	-100.00%
Georgia	30.66%	6.38%	9.72%	-35.29%	88.52%	-48.01%	-100.00%
Hawaii	29.72%	6.77%	10.33%	-5.09%	46.99%	-46.50%	-100.00%
Idaho	23.31%	5.43%	8.25%	-8.65%	56.50%	-42.96%	-100.00%
Illinois	33.41%	7.75%	11.84%	-26.24%	76.49%	-48.43%	-100.00%
Indiana	34.55%	7.56%	11.55%	-24.04%	73.17%	-49.84%	-100.00%
Iowa	23.28%	5.34%	8.11%	-3.39%	40.52%	-44.36%	-100.00%
Kansas	29.04%	6.78%	10.34%	-8.54%	53.89%	-46.67%	-100.00%
Kentucky	23.64%	5.44%	8.26%	-10.77%	62.65%	-42.65%	-100.00%
Louisiana	22.41%	5.15%	7.83%	-19.59%	79.84%	-41.32%	-100.00%
Maine	51.88%	11.52%	17.77%	-13.85%	49.97%	-55.51%	-100.00%
Maryland	32.97%	8.12%	12.42%	-15.45%	65.40%	-47.15%	-100.00%
Massachusetts	40.77%	8.76%	13.43%	-45.86%	97.76%	-52.26%	-100.00%
Michigan	52.55%	10.41%	16.02%	-50.96%	88.44%	-56.90%	-100.00%
Minnesota	32.50%	7.59%	11.60%	-12.77%	60.73%	-48.02%	-100.00%
Mississippi	28.83%	6.11%	9.30%	-16.21%	62.97%	-47.16%	-100.00%
Missouri	19.99%	5.00%	7.59%	-14.54%	74.20%	-38.41%	-100.00%
Montana	22.83%	5.59%	8.50%	-2.19%	40.50%	-43.59%	-100.00%
Nebraska	23.18%	5.39%	8.20%	-5.94%	45.68%	-43.72%	-100.00%
Nevada	20.01%	5.26%	8.00%	-19.00%	82.99%	-37.33%	-100.00%
New Hampshire	57.10%	12.51%	19.34%	-75.29%	99.41%	-56.92%	-100.00%
New Jersey	56.70%	11.83%	18.26%	-39.92%	68.43%	-57.34%	-100.00%
New Mexico	23.49%	5.64%	8.58%	-5.13%	55.26%	-42.00%	-100.00%
New York	64.24%	13.01%	20.13%	13.25%	31.93%	-59.39%	-100.00%
North Carolina	26.54%	6.10%	9.26%	-23.00%	84.59%	-44.41%	-100.00%
North Dakota	17.90%	4.12%	6.25%	-1.66%	40.33%	-40.81%	-100.00%
Ohio	29.30%	6.90%	10.53%	-22.71%	76.34%	-45.83%	-100.00%
Oklahoma	21.07%	5.02%	7.62%	-9.02%	60.61%	-40.26%	-100.00%
Oregon	30.58%	8.02%	12.27%	-13.76%	68.29%	-37.64%	-100.00%
Pennsylvania	34.37%	8.12%	12.43%	-24.48%	80.21%	-48.41%	-100.00%
Rhode Island	49.18%	11.24%	17.32%	-26.75%	65.05%	-54.35%	-100.00%
South Carolina	29.61%	6.69%	10.21%	-28.24%	83.66%	-46.51%	-100.00%
South Dakota	17.97%	4.38%	6.64%	-3.92%	42.58%	-39.22%	-100.00%
Tennessee	22.45%	4.66%	7.08%	-26.69%	89.87%	-42.70%	-100.00%
Texas	30.72%	6.20%	9.44%	-30.71%	68.88%	-48.67%	-100.00%
Utah	27.81%	5.89%	8.97%	-23.77%	74.91%	-46.34%	-100.00%
Vermont	45.71%	10.70%	16.47%	-12.29%	51.25%	-53.21%	-100.00%
Virginia	27.22%	6.49%	9.88%	-27.20%	85.44%	-44.35%	-100.00%
Washington	31.68%	7.37%	11.26%	-15.93%	58.62%	-47.39%	-100.00%
West Virginia	32.94%	7.60%	11.62%	-9.81%	60.01%	-48.13%	-100.00%
Wisconsin	45.98%	10.15%	15.60%	-12.98%	51.33%	-54.02%	-100.00%
Wyoming	26.75%	6.74%	10.28%	-1.08%	40.36%	-44.82%	-100.00%
Average U.S.	34.14%	7.88%	12.05%	-22.43%	73.99%	-48.75%	-100.00%

TABLE 8C: Revenue Neutral Tax Reform Reducing/Eliminating Capital Taxes under Low Elasticity Assumption

	% Δ in Capital	% Δ in Labor	% Δ in Output	% Δ Land Prices	% Δ in t_ℓ	% Δ in overall t_k	% Δ in state t_k
Alabama	13.15%	3.19%	4.82%	-11.71%	111.24%	-35.89%	-100.00%
Alaska	44.46%	8.24%	12.62%	-23.61%	89.02%	-59.02%	-100.00%
Arizona	23.54%	5.86%	8.92%	-11.88%	96.97%	-46.67%	-100.00%
Arkansas	13.93%	3.23%	4.89%	-6.86%	93.06%	-39.64%	-100.00%
California	23.70%	5.64%	8.58%	-17.44%	110.16%	-46.96%	-100.00%
Colorado	18.22%	4.24%	6.43%	-15.67%	94.79%	-43.48%	-100.00%
Connecticut	36.73%	8.20%	12.54%	-19.79%	92.39%	-54.79%	-100.00%
Delaware	18.41%	4.29%	6.51%	-19.67%	137.44%	-42.03%	-100.00%
Florida	11.55%	2.50%	3.78%	1.58%	35.53%	-42.07%	-100.00%
Georgia	23.20%	4.85%	7.36%	-25.40%	103.92%	-48.01%	-100.00%
Hawaii	22.26%	5.09%	7.74%	-2.61%	83.34%	-46.50%	-100.00%
Idaho	15.37%	3.60%	5.44%	-5.23%	77.62%	-42.96%	-100.00%
Illinois	23.90%	5.57%	8.48%	-17.21%	93.56%	-48.43%	-100.00%
Indiana	24.19%	5.33%	8.10%	-15.25%	90.78%	-49.84%	-100.00%
Iowa	13.98%	3.22%	4.87%	-1.65%	54.79%	-44.36%	-100.00%
Kansas	19.04%	4.47%	6.78%	-4.74%	74.88%	-46.67%	-100.00%
Kentucky	16.68%	3.82%	5.79%	-6.43%	89.39%	-42.65%	-100.00%
Louisiana	17.11%	3.95%	5.98%	-14.38%	107.17%	-41.32%	-100.00%
Maine	37.32%	8.38%	12.83%	-4.61%	72.70%	-55.51%	-100.00%
Maryland	24.84%	6.15%	9.36%	-9.95%	94.92%	-47.15%	-100.00%
Massachusetts	31.32%	6.78%	10.34%	-32.21%	109.59%	-52.26%	-100.00%
Michigan	38.49%	7.72%	11.79%	-32.02%	95.00%	-56.90%	-100.00%
Minnesota	22.69%	5.33%	8.10%	-7.63%	85.48%	-48.02%	-100.00%
Mississippi	20.49%	4.36%	6.62%	-10.56%	86.27%	-47.16%	-100.00%
Missouri	14.50%	3.64%	5.50%	-10.38%	98.94%	-38.41%	-100.00%
Montana	13.41%	3.31%	5.01%	-1.02%	53.94%	-43.59%	-100.00%
Nebraska	14.27%	3.34%	5.05%	-3.37%	60.63%	-43.72%	-100.00%
Nevada	15.55%	4.10%	6.22%	-14.19%	110.23%	-37.33%	-100.00%
New Hampshire	41.37%	9.20%	14.11%	-48.47%	93.59%	-56.92%	-100.00%
New Jersey	41.43%	8.76%	13.42%	-22.20%	79.05%	-57.34%	-100.00%
New Mexico	16.77%	4.04%	6.12%	-3.09%	89.86%	-42.00%	-100.00%
New York	47.67%	9.79%	15.03%	19.15%	66.67%	-59.39%	-100.00%
North Carolina	20.05%	4.62%	7.01%	-16.45%	109.88%	-44.41%	-100.00%
North Dakota	10.37%	2.40%	3.62%	-0.81%	53.20%	-40.81%	-100.00%
Ohio	21.86%	5.17%	7.85%	-15.77%	99.26%	-45.83%	-100.00%
Oklahoma	14.89%	3.55%	5.38%	-5.96%	88.64%	-40.26%	-100.00%
Oregon	21.49%	5.67%	8.62%	-8.44%	92.95%	-37.64%	-100.00%
Pennsylvania	25.95%	6.17%	9.39%	-16.65%	104.99%	-48.41%	-100.00%
Rhode Island	36.34%	8.38%	12.83%	-14.82%	83.60%	-54.35%	-100.00%
South Carolina	22.34%	5.07%	7.70%	-20.05%	103.77%	-46.51%	-100.00%
South Dakota	10.72%	2.62%	3.96%	-2.15%	55.09%	-39.22%	-100.00%
Tennessee	16.81%	3.50%	5.30%	-19.41%	108.97%	-42.70%	-100.00%
Texas	22.06%	4.47%	6.78%	-20.83%	80.91%	-48.67%	-100.00%
Utah	20.42%	4.35%	6.59%	-16.49%	95.24%	-46.34%	-100.00%
Vermont	31.72%	7.50%	11.46%	-5.00%	72.73%	-53.21%	-100.00%
Virginia	20.54%	4.91%	7.46%	-19.52%	105.48%	-44.35%	-100.00%
Washington	23.10%	5.40%	8.22%	-10.20%	82.32%	-47.39%	-100.00%
West Virginia	24.37%	5.65%	8.60%	-5.72%	94.78%	-48.13%	-100.00%
Wisconsin	32.13%	7.16%	10.94%	-5.56%	73.67%	-54.02%	-100.00%
Wyoming	16.43%	4.16%	6.31%	-0.06%	58.24%	-44.82%	-100.00%
Average U.S.	24.89%	5.78%	8.79%	-14.64%	96.27%	-48.75%	-100.00%

TABLE 9A: Revenue Neutral Tax Reform Reducing/Eliminating Labor Taxes under High Elasticity Assumption

	% Δ in Capital	% Δ in Labor	% Δ in Output	% Δ Land Prices	% Δ in t_ℓ	% Δ in overall t_n	% Δ in state t_n
Alabama	10.29%	10.15%	9.84%	-126.05%	378.95%	-25.13%	-100.00%
Alaska	10.33%	10.15%	9.98%	-272.85%	330.66%	-24.67%	-100.00%
Arizona	9.57%	9.47%	9.17%	-113.47%	221.68%	-24.01%	-100.00%
Arkansas	10.44%	10.39%	9.94%	-95.96%	261.10%	-25.98%	-100.00%
California	9.40%	9.27%	9.02%	-130.76%	269.67%	-23.51%	-100.00%
Colorado	7.89%	7.80%	7.53%	-95.95%	201.80%	-20.99%	-100.00%
Connecticut	8.97%	8.84%	8.64%	-159.68%	225.42%	-22.59%	-100.00%
Delaware	9.81%	9.65%	9.42%	-151.42%	418.59%	-24.07%	-100.00%
Florida	7.84%	7.86%	7.53%	-59.18%	148.78%	-21.30%	-100.00%
Georgia	9.03%	8.87%	8.65%	-162.09%	291.21%	-22.68%	-100.00%
Hawaii	15.28%	15.04%	14.61%	-199.21%	365.68%	-32.13%	-100.00%
Idaho	8.89%	8.97%	8.46%	-68.02%	155.87%	-23.92%	-100.00%
Illinois	7.51%	7.43%	7.18%	-93.83%	169.26%	-20.23%	-100.00%
Indiana	7.97%	7.89%	7.61%	-98.85%	175.03%	-21.19%	-100.00%
Iowa	7.94%	8.34%	7.59%	-44.70%	88.68%	-23.65%	-100.00%
Kansas	8.98%	9.04%	8.54%	-71.38%	138.98%	-23.96%	-100.00%
Kentucky	11.89%	11.77%	11.33%	-124.51%	289.56%	-27.96%	-100.00%
Louisiana	10.99%	10.81%	10.52%	-154.49%	369.16%	-26.11%	-100.00%
Maine	10.16%	10.03%	9.76%	-156.24%	192.76%	-24.80%	-100.00%
Maryland	11.26%	11.12%	10.81%	-147.99%	275.10%	-26.62%	-100.00%
Massachusetts	8.66%	8.51%	8.34%	-174.43%	280.52%	-21.92%	-100.00%
Michigan	7.58%	7.46%	7.30%	-156.66%	208.30%	-19.95%	-100.00%
Minnesota	10.03%	9.96%	9.56%	-104.19%	193.68%	-25.08%	-100.00%
Mississippi	10.96%	10.82%	10.44%	-136.54%	255.09%	-26.35%	-100.00%
Missouri	8.45%	8.38%	8.05%	-83.56%	224.95%	-22.28%	-100.00%
Montana	5.94%	6.40%	5.69%	-27.08%	58.87%	-20.04%	-100.00%
Nebraska	7.09%	7.36%	6.76%	-43.39%	90.03%	-21.38%	-100.00%
Nevada	9.45%	9.33%	9.06%	-117.95%	310.78%	-23.68%	-100.00%
New Hampshire	3.70%	3.65%	3.56%	-69.98%	85.75%	-11.29%	-100.00%
New Jersey	8.22%	8.10%	7.92%	-163.03%	187.06%	-21.21%	-100.00%
New Mexico	13.63%	13.54%	12.98%	-124.45%	301.96%	-30.61%	-100.00%
New York	12.61%	12.42%	12.17%	-244.30%	279.21%	-28.33%	-100.00%
North Carolina	10.08%	9.92%	9.65%	-142.72%	317.85%	-24.65%	-100.00%
North Dakota	7.08%	7.82%	6.88%	-31.24%	80.94%	-23.42%	-100.00%
Ohio	9.68%	9.55%	9.27%	-130.94%	257.38%	-24.06%	-100.00%
Oklahoma	11.30%	11.24%	10.75%	-102.69%	258.28%	-27.33%	-100.00%
Oregon	7.92%	7.90%	7.56%	-69.77%	148.82%	-21.43%	-100.00%
Pennsylvania	9.94%	9.80%	9.55%	-144.96%	274.01%	-24.39%	-100.00%
Rhode Island	9.09%	8.97%	8.75%	-149.94%	200.12%	-22.89%	-100.00%
South Carolina	9.37%	9.22%	8.98%	-143.50%	277.32%	-23.39%	-100.00%
South Dakota	5.53%	5.94%	5.31%	-26.66%	67.33%	-18.82%	-100.00%
Tennessee	8.46%	8.31%	8.08%	-131.52%	306.51%	-21.76%	-100.00%
Texas	8.20%	8.06%	7.82%	-128.90%	197.12%	-21.38%	-100.00%
Utah	9.84%	9.68%	9.39%	-142.27%	274.42%	-24.29%	-100.00%
Vermont	9.17%	9.09%	8.77%	-107.71%	147.33%	-23.44%	-100.00%
Virginia	8.50%	8.38%	8.15%	-119.39%	247.62%	-21.92%	-100.00%
Washington	10.97%	10.82%	10.48%	-138.56%	233.52%	-26.28%	-100.00%
West Virginia	12.98%	12.81%	12.43%	-164.71%	319.23%	-29.18%	-100.00%
Wisconsin	10.14%	10.02%	9.70%	-132.54%	178.52%	-24.98%	-100.00%
Wyoming	8.61%	8.92%	8.18%	-46.00%	88.96%	-24.57%	-100.00%
Average U.S.	9.37%	9.25%	8.97%	-123.02%	224.92%	-23.57%	-100.00%

TABLE 9B: Revenue Neutral Tax Reform Reducing/Eliminating Labor Taxes under Medium Elasticity Assumption

	% Δ in Capital	% Δ in Labor	% Δ in Output	% Δ Land Prices	% Δ in t_ℓ	% Δ in overall t_n	% Δ in state t_n
Alabama	9.38%	9.89%	9.45%	-124.63%	371.82%	-25.13%	-100.00%
Alaska	9.74%	9.99%	9.75%	-272.42%	319.51%	-24.67%	-100.00%
Arizona	8.75%	9.22%	8.79%	-112.89%	219.62%	-24.01%	-100.00%
Arkansas	9.20%	10.06%	9.43%	-94.80%	258.98%	-25.98%	-100.00%
California	8.66%	9.06%	8.70%	-129.93%	265.49%	-23.51%	-100.00%
Colorado	7.13%	7.59%	7.21%	-95.18%	200.70%	-20.99%	-100.00%
Connecticut	8.37%	8.67%	8.38%	-159.53%	221.68%	-22.59%	-100.00%
Delaware	9.09%	9.45%	9.12%	-150.18%	409.18%	-24.07%	-100.00%
Florida	7.13%	7.60%	7.15%	-59.05%	151.71%	-21.30%	-100.00%
Georgia	8.34%	8.69%	8.38%	-161.22%	285.13%	-22.68%	-100.00%
Hawaii	13.97%	14.66%	14.05%	-198.06%	352.10%	-32.13%	-100.00%
Idaho	7.66%	8.63%	7.94%	-67.40%	157.12%	-23.92%	-100.00%
Illinois	6.82%	7.23%	6.88%	-93.29%	168.80%	-20.23%	-100.00%
Indiana	7.19%	7.67%	7.29%	-98.30%	174.27%	-21.19%	-100.00%
Iowa	6.51%	7.95%	7.00%	-44.47%	90.89%	-23.65%	-100.00%
Kansas	7.80%	8.70%	8.04%	-70.99%	140.22%	-23.96%	-100.00%
Kentucky	10.63%	11.42%	10.80%	-123.24%	284.36%	-27.96%	-100.00%
Louisiana	10.08%	10.56%	10.14%	-153.09%	359.93%	-26.11%	-100.00%
Maine	9.39%	9.79%	9.41%	-156.31%	189.64%	-24.80%	-100.00%
Maryland	10.39%	10.85%	10.41%	-147.35%	269.66%	-26.62%	-100.00%
Massachusetts	8.11%	8.36%	8.11%	-173.95%	274.84%	-21.92%	-100.00%
Michigan	7.07%	7.32%	7.09%	-156.38%	205.19%	-19.95%	-100.00%
Minnesota	8.99%	9.65%	9.11%	-103.60%	192.44%	-25.08%	-100.00%
Mississippi	9.84%	10.52%	10.00%	-135.47%	250.22%	-26.35%	-100.00%
Missouri	7.57%	8.13%	7.62%	-82.70%	224.56%	-22.28%	-100.00%
Montana	4.79%	6.07%	5.19%	-27.08%	61.31%	-20.04%	-100.00%
Nebraska	5.90%	7.02%	6.27%	-43.09%	92.17%	-21.38%	-100.00%
Nevada	8.70%	9.11%	8.72%	-116.75%	306.09%	-23.68%	-100.00%
New Hampshire	3.45%	3.58%	3.46%	-70.40%	87.00%	-11.29%	-100.00%
New Jersey	7.68%	7.94%	7.68%	-163.01%	184.20%	-21.21%	-100.00%
New Mexico	12.13%	13.10%	12.32%	-123.21%	296.39%	-30.61%	-100.00%
New York	11.70%	12.16%	11.77%	-247.78%	271.48%	-28.33%	-100.00%
North Carolina	9.25%	9.69%	9.31%	-141.55%	311.30%	-24.65%	-100.00%
North Dakota	5.59%	7.41%	6.28%	-31.05%	83.60%	-23.42%	-100.00%
Ohio	8.88%	9.32%	8.92%	-130.02%	253.21%	-24.06%	-100.00%
Oklahoma	9.99%	10.87%	10.20%	-101.60%	255.76%	-27.33%	-100.00%
Oregon	7.12%	7.65%	7.19%	-70.34%	151.88%	-21.43%	-100.00%
Pennsylvania	9.20%	9.58%	9.22%	-144.31%	269.11%	-24.39%	-100.00%
Rhode Island	8.46%	8.78%	8.47%	-149.85%	197.21%	-22.89%	-100.00%
South Carolina	8.63%	9.01%	8.67%	-142.57%	272.27%	-23.39%	-100.00%
South Dakota	4.48%	5.64%	4.87%	-26.45%	69.69%	-18.82%	-100.00%
Tennessee	7.72%	8.12%	7.80%	-130.29%	301.15%	-21.76%	-100.00%
Texas	7.43%	7.87%	7.53%	-128.02%	194.32%	-21.38%	-100.00%
Utah	8.95%	9.45%	9.05%	-141.76%	269.13%	-24.29%	-100.00%
Vermont	8.33%	8.84%	8.39%	-107.68%	146.89%	-23.44%	-100.00%
Virginia	7.82%	8.19%	7.85%	-118.50%	244.46%	-21.92%	-100.00%
Washington	9.98%	10.54%	10.05%	-137.85%	229.44%	-26.28%	-100.00%
West Virginia	11.88%	12.48%	11.95%	-163.86%	310.82%	-29.18%	-100.00%
Wisconsin	9.23%	9.76%	9.30%	-132.47%	176.50%	-24.98%	-100.00%
Wyoming	7.20%	8.49%	7.54%	-45.91%	91.54%	-24.57%	-100.00%
Average U.S.	8.56%	9.02%	8.62%	-122.44%	222.28%	-23.57%	-100.00%

TABLE 9C: Revenue Neutral Tax Reform Reducing/Eliminating Labor Taxes under Low Elasticity Assumption

	% Δ in Capital	% Δ in Labor	% Δ in Output	% Δ Land Prices	% Δ in t_ℓ	% Δ in overall t_n	% Δ in state t_n
Alabama	7.30%	9.31%	8.58%	-121.63%	358.50%	-25.13%	-100.00%
Alaska	8.20%	9.59%	9.14%	-271.66%	295.82%	-24.67%	-100.00%
Arizona	6.86%	8.64%	7.93%	-111.67%	215.72%	-24.01%	-100.00%
Arkansas	6.67%	9.36%	8.39%	-92.59%	255.52%	-25.98%	-100.00%
California	6.93%	8.55%	7.94%	-128.94%	258.59%	-23.51%	-100.00%
Colorado	5.47%	7.13%	6.53%	-93.85%	199.15%	-20.99%	-100.00%
Connecticut	6.89%	8.23%	7.73%	-159.29%	213.87%	-22.59%	-100.00%
Delaware	7.36%	8.97%	8.40%	-147.90%	391.36%	-24.07%	-100.00%
Florida	1.90%	4.74%	2.90%	-6.08%	30.63%	-21.30%	-100.00%
Georgia	6.70%	8.26%	7.75%	-159.04%	272.49%	-22.68%	-100.00%
Hawaii	10.86%	13.77%	12.71%	-194.84%	326.03%	-32.13%	-100.00%
Idaho	5.35%	7.98%	6.98%	-66.22%	159.16%	-23.92%	-100.00%
Illinois	5.29%	6.79%	6.23%	-92.32%	168.19%	-20.23%	-100.00%
Indiana	5.48%	7.20%	6.58%	-97.21%	172.94%	-21.19%	-100.00%
Iowa	4.18%	7.29%	6.03%	-43.81%	93.73%	-23.65%	-100.00%
Kansas	5.51%	8.04%	7.05%	-70.18%	142.27%	-23.96%	-100.00%
Kentucky	7.76%	10.59%	9.57%	-113.36%	262.78%	-27.96%	-100.00%
Louisiana	7.94%	9.97%	9.26%	-150.09%	342.27%	-26.11%	-100.00%
Maine	7.54%	9.24%	8.58%	-156.45%	183.30%	-24.80%	-100.00%
Maryland	8.29%	10.21%	9.45%	-146.01%	259.07%	-26.62%	-100.00%
Massachusetts	6.73%	7.98%	7.54%	-172.56%	262.41%	-21.92%	-100.00%
Michigan	5.81%	6.98%	6.58%	-155.88%	198.74%	-19.95%	-100.00%
Minnesota	6.75%	9.00%	8.14%	-102.75%	190.73%	-25.08%	-100.00%
Mississippi	7.41%	9.88%	9.04%	-133.28%	241.42%	-26.35%	-100.00%
Missouri	5.71%	7.59%	6.86%	-81.09%	224.28%	-22.28%	-100.00%
Montana	3.03%	5.56%	4.44%	-27.53%	65.66%	-20.04%	-100.00%
Nebraska	3.89%	6.46%	5.43%	-42.66%	95.64%	-21.38%	-100.00%
Nevada	6.94%	8.56%	7.91%	-114.14%	297.04%	-23.68%	-100.00%
New Hampshire	2.87%	3.41%	3.20%	-71.93%	90.01%	-11.29%	-100.00%
New Jersey	6.32%	7.55%	7.10%	-163.08%	178.21%	-21.21%	-100.00%
New Mexico	8.93%	12.16%	10.93%	-120.71%	286.80%	-30.61%	-100.00%
New York	9.76%	11.58%	10.91%	-245.92%	250.76%	-28.33%	-100.00%
North Carolina	7.32%	9.15%	8.50%	-139.09%	298.73%	-24.65%	-100.00%
North Dakota	3.41%	6.82%	5.40%	-30.79%	87.30%	-23.42%	-100.00%
Ohio	7.01%	8.78%	8.12%	-128.31%	245.55%	-24.06%	-100.00%
Oklahoma	7.30%	10.10%	9.06%	-99.48%	251.53%	-27.33%	-100.00%
Oregon	5.39%	7.10%	6.37%	-69.77%	154.82%	-21.43%	-100.00%
Pennsylvania	7.41%	9.05%	8.43%	-143.10%	259.63%	-24.39%	-100.00%
Rhode Island	6.92%	8.31%	7.77%	-149.71%	191.19%	-22.89%	-100.00%
South Carolina	6.88%	8.53%	7.94%	-140.45%	261.83%	-23.39%	-100.00%
South Dakota	2.83%	5.17%	4.17%	-26.07%	73.09%	-18.82%	-100.00%
Tennessee	6.03%	7.70%	7.18%	-127.64%	290.83%	-21.76%	-100.00%
Texas	5.73%	7.44%	6.88%	-126.07%	188.84%	-21.38%	-100.00%
Utah	6.94%	8.92%	8.26%	-139.29%	258.60%	-24.29%	-100.00%
Vermont	6.45%	8.26%	7.52%	-107.81%	146.23%	-23.44%	-100.00%
Virginia	6.22%	7.73%	7.17%	-116.78%	238.66%	-21.92%	-100.00%
Washington	7.73%	9.88%	9.07%	-136.07%	221.37%	-26.28%	-100.00%
West Virginia	9.28%	11.72%	10.82%	-161.90%	294.76%	-29.18%	-100.00%
Wisconsin	7.16%	9.15%	8.40%	-132.28%	172.55%	-24.98%	-100.00%
Wyoming	4.76%	7.74%	6.42%	-45.65%	95.39%	-24.57%	-100.00%
Average U.S.	6.71%	8.48%	7.82%	-121.01%	216.89%	-23.57%	-100.00%

TABLE 10: Percentage Change in Tax on Capital and Labor if Specific State and Local Taxes are Eliminated

	Elimination of Sales Tax		Elimination of Personal Income Tax		Elimination of Corp. Income Tax		Elimination of Property Tax	
	% ↓ in t_K	% ↓ in t_L	% ↓ in t_K	% ↓ in t_L	% ↓ in t_K	% ↓ in t_L	% ↓ in t_K	% ↓ in t_L
Alabama	-12.21%	-15.41%	-4.99%	-6.29%	-3.95%	0.00%	-12.03%	0.00%
Alaska	-2.35%	-4.67%	0.00%	0.00%	-11.33%	0.00%	-35.27%	0.00%
Arizona	-10.59%	-16.31%	-3.76%	-5.79%	-3.71%	0.00%	-27.38%	0.00%
Arkansas	-12.39%	-16.42%	-5.68%	-7.52%	-5.77%	0.00%	-14.26%	0.00%
California	-8.27%	-12.89%	-5.26%	-8.20%	-6.81%	0.00%	-25.08%	0.00%
Colorado	-7.80%	-11.78%	-4.95%	-7.47%	-1.93%	0.00%	-27.65%	0.00%
Connecticut	-6.54%	-12.10%	-4.41%	-8.16%	-6.76%	0.00%	-35.82%	0.00%
Delaware	-2.69%	-3.81%	-7.29%	-10.31%	-10.42%	0.00%	-14.61%	0.00%
Florida	-12.16%	-17.84%	0.00%	0.00%	-2.57%	0.00%	-24.99%	0.00%
Georgia	-8.06%	-12.95%	-5.05%	-8.12%	-4.28%	0.00%	-29.63%	0.00%
Hawaii	-14.81%	-20.30%	-7.37%	-10.09%	-2.72%	0.00%	-20.34%	0.00%
Idaho	-8.25%	-11.89%	-6.04%	-8.71%	-4.83%	0.00%	-21.53%	0.00%
Illinois	-7.34%	-12.27%	-3.67%	-6.14%	-4.39%	0.00%	-31.94%	0.00%
Indiana	-5.93%	-10.06%	-5.93%	-10.08%	-7.30%	0.00%	-30.07%	0.00%
Iowa	-7.97%	-11.82%	-5.96%	-8.84%	-3.30%	0.00%	-25.13%	0.00%
Kansas	-8.89%	-13.71%	-4.89%	-7.54%	-5.04%	0.00%	-26.10%	0.00%
Kentucky	-9.98%	-13.55%	-7.51%	-10.20%	-4.94%	0.00%	-17.13%	0.00%
Louisiana	-12.89%	-17.54%	-3.17%	-4.31%	-3.83%	0.00%	-18.32%	0.00%
Maine	-7.34%	-13.40%	-5.06%	-9.23%	-3.59%	0.00%	-38.33%	0.00%
Maryland	-6.64%	-9.96%	-9.30%	-13.95%	-2.81%	0.00%	-26.62%	0.00%
Massachusetts	-4.41%	-7.79%	-6.98%	-12.33%	-6.92%	0.00%	-32.94%	0.00%
Michigan	-5.04%	-10.12%	-4.00%	-8.02%	-9.77%	0.00%	-37.19%	0.00%
Minnesota	-7.63%	-11.89%	-6.70%	-10.44%	-5.21%	0.00%	-26.72%	0.00%
Mississippi	-12.47%	-18.78%	-3.48%	-5.24%	-5.17%	0.00%	-24.49%	0.00%
Missouri	-9.36%	-12.76%	-5.34%	-7.28%	-2.73%	0.00%	-19.35%	0.00%
Montana	-3.57%	-5.47%	-5.09%	-7.79%	-4.41%	0.00%	-26.11%	0.00%
Nebraska	-8.23%	-12.43%	-4.53%	-6.84%	-3.46%	0.00%	-26.11%	0.00%
Nevada	-14.52%	-19.11%	0.00%	0.00%	0.00%	0.00%	-19.34%	0.00%
New Hampshire	-3.48%	-7.75%	-0.26%	-0.58%	-4.89%	0.00%	-46.97%	0.00%
New Jersey	-5.87%	-11.71%	-3.79%	-7.56%	-4.60%	0.00%	-42.12%	0.00%
New Mexico	-14.79%	-19.13%	-4.68%	-6.05%	-4.93%	0.00%	-13.41%	0.00%
New York	-6.62%	-12.63%	-7.15%	-13.64%	-10.04%	0.00%	-34.50%	0.00%
North Carolina	-8.78%	-12.87%	-6.61%	-9.68%	-5.98%	0.00%	-21.62%	0.00%
North Dakota	-10.38%	-14.51%	-2.70%	-3.77%	-6.80%	0.00%	-17.27%	0.00%
Ohio	-7.50%	-11.36%	-6.90%	-10.45%	-3.07%	0.00%	-26.89%	0.00%
Oklahoma	-11.21%	-14.73%	-5.62%	-7.38%	-3.51%	0.00%	-15.96%	0.00%
Oregon	-2.19%	-3.40%	-8.49%	-13.16%	-3.66%	0.00%	-27.74%	0.00%
Pennsylvania	-6.92%	-10.95%	-5.53%	-8.75%	-5.95%	0.00%	-27.07%	0.00%
Rhode Island	-6.66%	-12.15%	-4.86%	-8.87%	-3.41%	0.00%	-38.40%	0.00%
South Carolina	-8.11%	-12.54%	-5.15%	-7.97%	-3.88%	0.00%	-27.52%	0.00%
South Dakota	-10.69%	-15.44%	0.00%	0.00%	-2.89%	0.00%	-23.31%	0.00%
Tennessee	-12.54%	-18.50%	-0.22%	-0.33%	-5.75%	0.00%	-22.20%	0.00%
Texas	-10.36%	-17.14%	0.00%	0.00%	0.00%	0.00%	-35.75%	0.00%
Utah	-9.31%	-14.19%	-5.67%	-8.64%	-4.40%	0.00%	-26.01%	0.00%
Vermont	-6.71%	-11.87%	-4.77%	-8.44%	-2.64%	0.00%	-37.33%	0.00%
Virginia	-6.75%	-10.23%	-5.82%	-8.83%	-2.34%	0.00%	-27.56%	0.00%
Washington	-15.05%	-22.78%	0.00%	0.00%	0.00%	0.00%	-30.03%	0.00%
West Virginia	-11.18%	-16.49%	-5.27%	-7.78%	-7.29%	0.00%	-21.06%	0.00%
Wisconsin	-6.70%	-11.81%	-6.39%	-11.26%	-4.64%	0.00%	-35.24%	0.00%
Wyoming	-7.43%	-10.98%	0.00%	0.00%	0.00%	0.00%	-28.19%	0.00%
Average U.S.	-8.19%	-13.16%	-4.65%	-7.61%	-5.12%	0.00%	-29.04%	0.00%

TABLE 11A: Revenue Neutral Tax Reform Eliminating State Sales Taxes under High Elasticity Assumption

	% Δ in Capital	% Δ in Labor	% Δ in Output	% Δ Land Prices	% Δ in t_ℓ	Fraction of S&L Revenue
Alabama	13.34%	8.04%	8.77%	-81.15%	256.34%	0.5186
Alaska	4.86%	2.63%	2.97%	-39.29%	54.00%	0.1097
Arizona	15.44%	8.93%	10.00%	-78.71%	160.47%	0.4473
Arkansas	14.40%	8.53%	9.23%	-63.37%	181.25%	0.5082
California	11.88%	6.92%	7.70%	-70.75%	155.13%	0.3649
Colorado	9.93%	5.81%	6.39%	-55.32%	122.99%	0.3700
Connecticut	12.06%	6.72%	7.61%	-77.95%	117.23%	0.2941
Delaware	3.28%	1.99%	2.16%	-21.16%	66.61%	0.1209
Florida	17.26%	10.17%	11.74%	-52.53%	137.52%	0.5096
Georgia	11.41%	6.56%	7.20%	-93.48%	176.52%	0.3825
Hawaii	21.55%	12.52%	13.79%	-121.71%	239.01%	0.5153
Idaho	10.16%	5.96%	6.46%	-32.87%	83.82%	0.3470
Illinois	10.82%	6.20%	6.89%	-57.57%	109.13%	0.3474
Indiana	8.93%	5.08%	5.62%	-45.19%	86.38%	0.2782
Iowa	9.69%	5.66%	6.03%	-20.90%	48.53%	0.3144
Kansas	12.32%	7.08%	7.76%	-39.48%	84.49%	0.3680
Kentucky	12.63%	7.48%	8.14%	-57.42%	147.55%	0.3872
Louisiana	15.87%	9.39%	10.27%	-108.83%	270.63%	0.5356
Maine	14.12%	7.77%	8.85%	-72.79%	97.14%	0.3061
Maryland	9.80%	5.76%	6.44%	-47.92%	100.15%	0.2636
Massachusetts	7.22%	4.10%	4.58%	-56.53%	98.63%	0.2100
Michigan	9.68%	5.27%	5.93%	-74.19%	104.37%	0.2532
Minnesota	11.23%	6.47%	7.17%	-45.64%	93.89%	0.3148
Mississippi	17.52%	10.03%	10.94%	-100.80%	195.50%	0.5179
Missouri	10.75%	6.41%	7.04%	-51.81%	142.42%	0.4240
Montana	4.19%	2.48%	2.64%	-6.29%	17.86%	0.1453
Nebraska	9.98%	5.82%	6.24%	-25.01%	58.04%	0.3498
Nevada	16.98%	10.14%	11.25%	-107.06%	284.90%	0.6310
New Hampshire	6.86%	3.73%	4.28%	-46.85%	59.07%	0.1948
New Jersey	11.82%	6.41%	7.30%	-81.28%	98.66%	0.2741
New Mexico	19.01%	11.21%	12.25%	-25.99%	201.68%	0.5250
New York	14.91%	8.01%	9.13%	-79.25%	101.49%	0.2662
North Carolina	11.61%	6.83%	7.51%	-73.91%	175.98%	0.3819
North Dakota	10.82%	6.49%	6.72%	-19.01%	57.66%	0.4070
Ohio	10.36%	6.08%	6.72%	-59.50%	126.45%	0.3250
Oklahoma	13.40%	7.97%	8.65%	-54.46%	149.63%	0.4363
Oregon	3.05%	1.80%	2.02%	-9.04%	23.09%	0.0955
Pennsylvania	10.37%	6.03%	6.72%	-60.28%	124.01%	0.2968
Rhode Island	12.27%	6.85%	7.79%	-71.15%	101.74%	0.2904
South Carolina	11.27%	6.55%	7.24%	-76.60%	157.12%	0.3651
South Dakota	11.23%	6.64%	7.02%	-23.32%	64.24%	0.4706
Tennessee	15.30%	8.91%	9.64%	-123.29%	289.07%	0.6173
Texas	14.82%	8.37%	9.13%	-110.95%	172.07%	0.5028
Utah	12.66%	7.31%	7.99%	-84.09%	170.78%	0.4147
Vermont	11.89%	6.67%	7.54%	-47.02%	70.95%	0.2796
Virginia	8.90%	5.24%	5.80%	-55.03%	122.27%	0.3119
Washington	22.28%	12.69%	14.08%	-131.70%	222.45%	0.6062
West Virginia	16.85%	9.74%	10.81%	-87.38%	183.39%	0.4235
Wisconsin	11.99%	6.70%	7.53%	-53.90%	80.23%	0.2782
Wyoming	9.76%	5.69%	6.20%	-17.63%	41.89%	0.2798
Average U.S.	12.29%	7.05%	7.85%	-66.97%	130.56%	0.3577

TABLE 11B: Revenue Neutral Tax Reform Eliminating State Sales Taxes under Medium Elasticity Assumption

	% Δ in Capital	% Δ in Labor	% Δ in Output	% Δ Land Prices	% Δ in t_ℓ	Fraction of S&L Revenue
Alabama	12.15%	7.72%	8.28%	-79.58%	255.60%	0.5186
Alaska	4.60%	2.58%	3.01%	-39.58%	56.46%	0.1097
Arizona	14.07%	8.55%	9.41%	-77.82%	161.72%	0.4473
Arkansas	12.66%	8.08%	8.56%	-61.37%	183.92%	0.5082
California	10.95%	6.66%	7.30%	-70.07%	157.16%	0.3649
Colorado	8.97%	5.56%	5.99%	-54.53%	125.50%	0.3700
Connecticut	11.24%	6.48%	7.25%	-78.08%	119.13%	0.2941
Delaware	3.05%	1.91%	2.08%	-21.02%	70.11%	0.1209
Florida	15.59%	9.60%	10.86%	-51.66%	143.29%	0.5096
Georgia	10.53%	6.35%	6.87%	-92.57%	175.60%	0.3825
Hawaii	19.67%	12.03%	13.03%	-120.48%	233.43%	0.5153
Idaho	8.76%	5.60%	5.90%	-32.43%	88.89%	0.3470
Illinois	9.80%	5.93%	6.47%	-56.96%	111.84%	0.3474
Indiana	8.04%	4.84%	5.26%	-44.84%	89.78%	0.2782
Iowa	7.94%	5.19%	5.33%	-20.82%	52.94%	0.3144
Kansas	10.67%	6.64%	7.07%	-39.15%	89.35%	0.3680
Kentucky	11.31%	7.12%	7.62%	-56.67%	151.43%	0.3872
Louisiana	14.53%	9.05%	9.73%	-107.05%	265.40%	0.5356
Maine	13.04%	7.49%	8.39%	-97.33%	99.84%	0.3061
Maryland	9.06%	5.53%	6.12%	-47.92%	104.68%	0.2636
Massachusetts	6.77%	3.99%	4.41%	-56.42%	101.13%	0.2100
Michigan	9.02%	5.08%	5.65%	-74.20%	105.97%	0.2532
Minnesota	10.07%	6.16%	6.69%	-45.42%	98.42%	0.3148
Mississippi	15.68%	9.57%	10.24%	-99.16%	192.82%	0.5179
Missouri	9.63%	6.11%	6.56%	-48.90%	146.38%	0.4240
Montana	3.40%	2.25%	2.31%	-6.40%	20.48%	0.1453
Nebraska	8.29%	5.36%	5.56%	-24.70%	62.39%	0.3498
Nevada	15.57%	9.74%	10.64%	-104.78%	278.61%	0.6310
New Hampshire	6.38%	3.60%	4.08%	-47.22%	61.64%	0.1948
New Jersey	11.02%	6.19%	6.97%	-81.54%	100.13%	0.2741
New Mexico	16.87%	10.63%	11.37%	-75.81%	203.19%	0.5250
New York	13.97%	7.73%	8.75%	-80.68%	104.75%	0.2662
North Carolina	10.67%	6.57%	7.13%	-72.99%	177.30%	0.3819
North Dakota	8.50%	5.89%	5.82%	-18.78%	62.50%	0.4070
Ohio	9.51%	5.83%	6.36%	-58.96%	129.32%	0.3250
Oklahoma	11.85%	7.54%	8.04%	-53.55%	153.97%	0.4363
Oregon	2.75%	1.70%	1.89%	-9.26%	26.22%	0.0955
Pennsylvania	9.60%	5.80%	6.41%	-60.31%	127.27%	0.2968
Rhode Island	11.41%	6.61%	7.42%	-71.36%	104.20%	0.2904
South Carolina	10.38%	6.33%	6.90%	-75.82%	158.14%	0.3651
South Dakota	9.01%	6.04%	6.12%	-22.76%	68.64%	0.4706
Tennessee	13.89%	8.58%	9.15%	-120.92%	280.73%	0.6173
Texas	13.37%	8.03%	8.61%	-109.21%	168.74%	0.5028
Utah	11.50%	7.03%	7.55%	-83.05%	170.75%	0.4147
Vermont	10.79%	6.34%	7.06%	-47.41%	75.14%	0.2796
Virginia	8.18%	5.04%	5.50%	-54.46%	125.07%	0.3119
Washington	20.14%	12.12%	13.19%	-129.48%	214.83%	0.6062
West Virginia	15.40%	9.35%	10.20%	-86.78%	184.22%	0.4235
Wisconsin	10.92%	6.40%	7.07%	-54.23%	84.03%	0.2782
Wyoming	8.16%	5.22%	5.51%	-17.85%	47.08%	0.2798
Average U.S.	11.22%	6.77%	7.40%	-66.51%	133.08%	0.3577

TABLE 11C: Revenue Neutral Tax Reform Eliminating State Sales Taxes under Low Elasticity Assumption

	% Δ in Capital	% Δ in Labor	% Δ in Output	% Δ Land Prices	% Δ in t_ℓ	Fraction of S&L Revenue
Alabama	9.38%	6.97%	7.18%	-76.17%	254.58%	0.5186
Alaska	3.93%	2.39%	2.61%	-40.42%	62.18%	0.1097
Arizona	10.87%	7.62%	8.02%	-75.88%	164.25%	0.4473
Arkansas	9.08%	7.16%	7.17%	-58.71%	188.70%	0.5082
California	8.70%	6.04%	6.37%	-68.98%	162.15%	0.3649
Colorado	6.85%	4.99%	5.15%	-53.00%	130.88%	0.3700
Connecticut	9.21%	5.92%	6.40%	-78.36%	123.16%	0.2941
Delaware	2.52%	1.76%	1.87%	-20.82%	78.18%	0.1209
Florida	5.29%	3.86%	3.74%	-4.41%	36.93%	0.5096
Georgia	8.41%	5.82%	6.09%	-90.21%	173.67%	0.3825
Hawaii	15.08%	10.81%	11.20%	-117.25%	223.24%	0.5153
Idaho	12.47%	7.98%	11.13%	-27.51%	97.31%	0.3470
Illinois	7.54%	5.30%	5.54%	-55.77%	117.17%	0.3474
Indiana	6.13%	4.34%	4.52%	-44.23%	96.37%	0.2782
Iowa	5.07%	4.44%	4.20%	-20.58%	59.21%	0.3144
Kansas	7.47%	5.77%	5.78%	-38.50%	97.37%	0.3680
Kentucky	8.44%	6.38%	6.48%	-55.27%	158.87%	0.3872
Louisiana	11.31%	8.21%	8.48%	-102.81%	255.82%	0.5356
Maine	10.53%	6.76%	7.31%	-74.41%	105.13%	0.3061
Maryland	7.28%	5.03%	5.34%	-47.98%	114.10%	0.2636
Massachusetts	5.65%	3.70%	3.96%	-56.18%	106.55%	0.2100
Michigan	7.39%	4.67%	5.03%	-74.14%	109.41%	0.2532
Minnesota	7.56%	5.49%	5.65%	-45.16%	107.06%	0.3148
Mississippi	11.59%	8.56%	8.73%	-95.76%	188.47%	0.5179
Missouri	7.22%	5.44%	5.56%	-47.08%	154.02%	0.4240
Montana	2.18%	1.91%	1.80%	-6.73%	24.72%	0.1453
Nebraska	5.41%	4.61%	4.41%	-24.24%	69.10%	0.3498
Nevada	12.19%	8.77%	9.16%	-99.56%	267.38%	0.6310
New Hampshire	5.27%	3.29%	3.61%	-48.29%	67.34%	0.1948
New Jersey	9.03%	5.65%	6.14%	-82.23%	103.29%	0.2741
New Mexico	12.25%	9.38%	9.49%	-73.13%	205.90%	0.5250
New York	11.52%	7.08%	7.74%	-84.32%	111.30%	0.2662
North Carolina	8.42%	5.98%	6.24%	-71.05%	180.22%	0.3819
North Dakota	5.12%	5.01%	4.51%	-18.50%	69.01%	0.4070
Ohio	7.50%	5.28%	5.54%	-57.89%	135.37%	0.3250
Oklahoma	8.62%	6.69%	6.73%	-51.79%	161.61%	0.4363
Oregon	2.12%	1.51%	1.60%	-9.41%	32.07%	0.0955
Pennsylvania	7.74%	5.28%	5.61%	-59.59%	134.23%	0.2968
Rhode Island	9.28%	6.00%	6.51%	-71.96%	109.28%	0.2904
South Carolina	8.26%	5.76%	6.03%	-73.99%	160.24%	0.3651
South Dakota	5.57%	5.13%	4.72%	-21.91%	74.73%	0.4706
Tennessee	10.64%	7.81%	7.98%	-115.60%	265.80%	0.6173
Texas	10.11%	7.24%	7.44%	-105.34%	162.73%	0.5028
Utah	8.86%	6.39%	6.58%	-80.57%	170.57%	0.4147
Vermont	8.30%	5.62%	5.97%	-48.35%	83.18%	0.2796
Virginia	6.52%	4.58%	4.82%	-53.24%	131.01%	0.3119
Washington	15.11%	10.76%	11.15%	-124.28%	201.76%	0.6062
West Virginia	11.95%	8.42%	8.79%	-85.43%	185.81%	0.4235
Wisconsin	8.45%	5.71%	6.04%	-55.09%	91.30%	0.2782
Wyoming	5.39%	4.41%	4.30%	-18.20%	55.02%	0.2798
Average U.S.	8.74%	6.08%	6.39%	-65.32%	137.91%	0.3577

TABLE 12A: Revenue Neutral Tax Reform Eliminating Personal Income Taxes under High Elasticity Assumption

	% Δ in Capital	% Δ in Labor	% Δ in Output	% Δ Land Prices	% Δ in t_ℓ	Fraction of S&L Revenue
Alabama	5.37%	3.29%	3.59%	-29.29%	99.80%	0.2118
Alaska	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
Arizona	5.37%	3.16%	3.54%	-23.04%	51.85%	0.1587
Arkansas	6.51%	3.91%	4.23%	-25.33%	79.73%	0.2328
California	7.49%	4.40%	4.89%	-41.64%	95.01%	0.2322
Colorado	6.25%	3.68%	4.04%	-33.05%	75.99%	0.2346
Connecticut	8.09%	4.53%	5.14%	-48.65%	75.61%	0.1985
Delaware	9.02%	5.40%	5.91%	-63.43%	189.64%	0.3270
Florida	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
Georgia	7.10%	4.12%	4.51%	-55.02%	107.54%	0.2399
Hawaii	10.50%	6.22%	6.84%	-49.11%	106.69%	0.2562
Idaho	7.41%	4.37%	4.73%	-22.93%	60.49%	0.2541
Illinois	5.36%	3.10%	3.44%	-26.19%	52.33%	0.1738
Indiana	8.93%	5.08%	5.62%	-45.19%	86.38%	0.2785
Iowa	7.21%	4.23%	4.51%	-14.88%	35.91%	0.2352
Kansas	6.70%	3.90%	4.27%	-19.53%	44.80%	0.2024
Kentucky	9.44%	5.63%	6.11%	-40.86%	108.49%	0.2913
Louisiana	3.82%	2.32%	2.52%	-22.03%	61.02%	0.1317
Maine	9.64%	5.37%	6.09%	-45.29%	62.98%	0.2109
Maryland	13.82%	8.06%	9.01%	-72.60%	146.16%	0.3690
Massachusetts	11.50%	6.49%	7.26%	-96.21%	162.45%	0.3322
Michigan	7.64%	4.17%	4.70%	-56.79%	81.10%	0.2008
Minnesota	9.82%	5.68%	6.29%	-38.96%	81.35%	0.2764
Mississippi	4.78%	2.81%	3.06%	-22.85%	50.09%	0.1445
Missouri	6.07%	3.65%	4.00%	-26.25%	78.81%	0.2419
Montana	5.98%	3.52%	3.75%	-9.32%	25.57%	0.2069
Nebraska	5.45%	3.20%	3.45%	-12.66%	31.35%	0.1925
Nevada	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
New Hampshire	0.50%	0.28%	0.31%	-3.21%	4.20%	0.0145
New Jersey	7.56%	4.14%	4.71%	-48.32%	60.71%	0.1770
New Mexico	5.87%	3.55%	3.87%	-18.88%	57.28%	0.1660
New York	16.13%	8.63%	9.86%	-87.97%	111.53%	0.2873
North Carolina	8.69%	5.15%	5.65%	-53.05%	129.62%	0.2874
North Dakota	2.79%	1.68%	1.75%	-4.16%	14.68%	0.1057
Ohio	9.51%	5.59%	6.18%	-53.93%	115.51%	0.2990
Oklahoma	6.63%	3.98%	4.33%	-24.21%	71.77%	0.2186
Oregon	11.97%	6.96%	7.83%	-42.43%	97.26%	0.3695
Pennsylvania	8.26%	4.82%	5.37%	-46.37%	97.18%	0.2372
Rhode Island	8.90%	5.00%	5.68%	-48.30%	71.11%	0.2120
South Carolina	7.12%	4.16%	4.60%	-45.51%	96.76%	0.2321
South Dakota	0.00%	0.00%	0.00%	0.00%	0.00%	0.0001
Tennessee	0.26%	0.15%	0.16%	-1.71%	4.51%	0.0109
Texas	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
Utah	7.63%	4.44%	4.86%	-47.35%	100.54%	0.2525
Vermont	8.40%	4.75%	5.37%	-30.96%	48.49%	0.1987
Virginia	7.67%	4.52%	5.01%	-46.61%	104.67%	0.2692
Washington	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
West Virginia	7.82%	4.59%	5.10%	-34.54%	79.10%	0.1998
Wisconsin	11.43%	6.39%	7.17%	-50.70%	75.88%	0.2653
Wyoming	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
Average U.S.	6.97%	4.06%	4.51%	-35.28%	72.17%	0.2057

TABLE 12B: Revenue Neutral Tax Reform Eliminating Personal Income Taxes under Medium Elasticity Assumption

	% Δ in Capital	% Δ in Labor	% Δ in Output	% Δ Land Prices	% Δ in t_ℓ	Fraction of S&L Revenue
Alabama	4.93%	3.16%	3.40%	-28.94%	104.46%	0.2118
Alaska	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
Arizona	4.94%	3.04%	3.35%	-23.09%	55.90%	0.1587
Arkansas	5.77%	3.72%	3.94%	-25.03%	84.96%	0.2328
California	6.93%	4.23%	4.64%	-41.41%	99.03%	0.2322
Colorado	5.66%	3.53%	3.81%	-32.68%	79.42%	0.2346
Connecticut	7.55%	4.38%	4.90%	-48.91%	78.94%	0.1985
Delaware	8.37%	5.21%	5.66%	-62.75%	192.35%	0.3270
Florida	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
Georgia	6.57%	4.00%	4.31%	-54.63%	109.81%	0.2399
Hawaii	9.66%	5.99%	6.49%	-49.21%	111.85%	0.2562
Idaho	6.40%	4.10%	4.34%	-22.73%	65.31%	0.2541
Illinois	4.87%	2.97%	3.24%	-26.09%	55.57%	0.1738
Indiana	8.06%	4.86%	5.26%	-44.88%	89.78%	0.2785
Iowa	5.94%	3.89%	4.00%	-14.91%	39.78%	0.2352
Kansas	5.84%	3.67%	3.89%	-19.57%	49.20%	0.2024
Kentucky	8.48%	5.36%	5.74%	-40.47%	113.62%	0.2913
Louisiana	3.52%	2.23%	2.40%	-21.91%	64.49%	0.1317
Maine	8.93%	5.15%	5.78%	-45.93%	66.85%	0.2109
Maryland	12.74%	7.74%	8.56%	-72.25%	148.75%	0.3690
Massachusetts	10.76%	6.30%	6.97%	-95.76%	162.13%	0.3322
Michigan	7.13%	4.03%	4.48%	-56.88%	83.46%	0.2008
Minnesota	8.82%	5.39%	5.88%	-38.85%	86.09%	0.2764
Mississippi	4.33%	2.68%	2.87%	-22.81%	53.50%	0.1445
Missouri	5.46%	3.49%	3.75%	-25.91%	83.42%	0.2419
Montana	4.83%	3.19%	3.27%	-9.44%	28.99%	0.2069
Nebraska	4.56%	2.97%	3.08%	-12.65%	34.68%	0.1925
Nevada	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
New Hampshire	0.46%	0.27%	0.31%	-3.22%	4.58%	0.0145
New Jersey	7.07%	4.01%	4.51%	-48.74%	63.41%	0.1770
New Mexico	5.28%	3.37%	3.62%	-18.94%	62.97%	0.1660
New York	15.10%	8.36%	9.45%	-89.40%	114.10%	0.2873
North Carolina	8.00%	4.95%	5.37%	-52.57%	133.00%	0.2874
North Dakota	2.22%	1.54%	1.54%	-4.21%	16.73%	0.1057
Ohio	8.74%	5.36%	5.86%	-53.49%	118.77%	0.2990
Oklahoma	5.90%	3.79%	4.04%	-24.05%	77.09%	0.2186
Oregon	10.71%	6.57%	7.25%	-42.67%	103.50%	0.3695
Pennsylvania	7.66%	4.66%	5.13%	-46.65%	101.16%	0.2372
Rhode Island	8.29%	4.82%	5.42%	-48.64%	74.57%	0.2120
South Carolina	6.57%	4.03%	4.39%	-45.23%	99.97%	0.2321
South Dakota	0.00%	0.00%	0.00%	0.00%	0.00%	0.0001
Tennessee	0.23%	0.14%	0.16%	-1.71%	4.82%	0.0109
Texas	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
Utah	6.96%	4.27%	4.61%	-46.97%	103.66%	0.2525
Vermont	7.64%	4.52%	5.04%	-31.44%	52.70%	0.1987
Virginia	7.07%	4.36%	4.76%	-46.15%	107.87%	0.2692
Washington	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
West Virginia	7.20%	4.43%	4.84%	-34.69%	84.43%	0.1998
Wisconsin	10.41%	6.09%	6.74%	-51.08%	79.80%	0.2653
Wyoming	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
Average U.S.	6.39%	3.91%	4.27%	-35.22%	76.10%	0.2057

TABLE 12C: Revenue Neutral Tax Reform Eliminating Personal Income Taxes under Low Elasticity Assumption

	% Δ in Capital	% Δ in Labor	% Δ in Output	% Δ Land Prices	% Δ in t_ℓ	Fraction of S&L Revenue
Alabama	3.90%	2.89%	2.99%	-28.21%	114.35%	0.2118
Alaska	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
Arizona	3.93%	2.76%	2.91%	-23.20%	64.37%	0.1587
Arkansas	4.26%	3.33%	3.35%	-24.47%	94.70%	0.2328
California	5.57%	3.87%	4.09%	-41.27%	107.99%	0.2322
Colorado	4.38%	3.18%	3.29%	-32.07%	86.54%	0.2346
Connecticut	6.18%	4.02%	4.37%	-49.66%	86.18%	0.1985
Delaware	6.81%	4.79%	5.03%	-61.34%	198.72%	0.3270
Florida	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
Georgia	5.31%	3.67%	3.85%	-53.71%	114.53%	0.2399
Hawaii	7.65%	5.47%	5.70%	-49.43%	121.86%	0.2562
Idaho	10.78%	6.65%	9.79%	-17.70%	73.54%	0.2541
Illinois	3.82%	3.65%	2.81%	-25.94%	62.27%	0.1738
Indiana	6.13%	4.34%	4.52%	-44.23%	96.37%	0.2785
Iowa	3.83%	3.34%	3.16%	-14.90%	45.50%	0.2352
Kansas	4.18%	3.22%	3.23%	-19.66%	56.91%	0.2024
Kentucky	6.39%	4.82%	4.92%	-39.85%	123.54%	0.2913
Louisiana	2.84%	2.06%	2.13%	-21.57%	71.93%	0.1317
Maine	7.20%	4.66%	5.04%	-47.37%	74.78%	0.2109
Maryland	10.12%	7.00%	7.41%	-71.49%	153.99%	0.3690
Massachusetts	8.88%	5.82%	6.22%	-94.47%	161.33%	0.3322
Michigan	5.88%	3.71%	4.00%	-57.13%	88.54%	0.2008
Minnesota	6.65%	4.81%	4.98%	-38.83%	95.21%	0.2764
Mississippi	3.34%	2.45%	2.52%	-22.76%	60.35%	0.1445
Missouri	4.16%	3.13%	3.20%	-25.27%	92.62%	0.2419
Montana	3.07%	2.70%	2.54%	-9.82%	34.40%	0.2069
Nebraska	3.03%	2.56%	2.47%	-12.63%	40.10%	0.1925
Nevada	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
New Hampshire	0.39%	0.25%	0.27%	-3.37%	5.46%	0.0145
New Jersey	5.86%	3.68%	4.01%	-49.72%	69.33%	0.1770
New Mexico	4.01%	3.04%	3.11%	-19.07%	74.10%	0.1660
New York	12.41%	7.63%	8.33%	-93.02%	119.16%	0.2873
North Carolina	6.37%	4.52%	4.72%	-51.48%	140.09%	0.2874
North Dakota	1.38%	1.33%	1.21%	-4.31%	19.73%	0.1057
Ohio	6.91%	4.86%	5.10%	-52.63%	125.60%	0.2990
Oklahoma	4.40%	3.39%	3.43%	-23.73%	87.20%	0.2186
Oregon	8.02%	5.77%	6.03%	-41.95%	113.02%	0.3695
Pennsylvania	6.21%	4.24%	4.51%	-46.20%	109.69%	0.2372
Rhode Island	6.80%	4.40%	4.78%	-49.60%	81.94%	0.2120
South Carolina	5.29%	3.69%	3.87%	-44.57%	106.70%	0.2321
South Dakota	0.00%	0.00%	0.00%	0.00%	0.00%	0.0001
Tennessee	0.18%	0.14%	0.14%	-1.63%	5.46%	0.0109
Texas	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
Utah	5.45%	3.91%	4.04%	-46.11%	109.80%	0.2525
Vermont	5.95%	4.03%	4.29%	-32.52%	61.05%	0.1987
Virginia	5.64%	3.96%	4.17%	-45.25%	114.77%	0.2692
Washington	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
West Virginia	5.74%	4.02%	4.23%	-35.08%	95.31%	0.1998
Wisconsin	8.07%	5.45%	5.77%	-51.96%	87.38%	0.2653
Wyoming	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
Average U.S.	5.06%	3.53%	3.72%	-35.11%	84.10%	0.2057

TABLE 13A: Revenue Neutral Tax Reform Eliminating Corporate Income Taxes under High Elasticity Assumption

	% Δ in Capital	% Δ in Labor	% Δ in Output	% Δ Land Prices	% Δ in t_ℓ	Fraction of S&L Revenue
Alabama	2.15%	0.57%	0.86%	-1.01%	4.95%	0.0323
Alaska	13.44%	3.10%	4.69%	15.95%	-18.40%	0.0901
Arizona	2.96%	0.84%	1.28%	1.15%	-0.36%	0.0342
Arkansas	3.42%	0.87%	1.31%	-0.46%	4.56%	0.0447
California	5.26%	1.44%	2.16%	0.48%	2.03%	0.0613
Colorado	1.32%	0.36%	0.53%	-0.31%	1.55%	0.0178
Connecticut	7.15%	1.94%	2.93%	7.15%	-7.88%	0.0623
Delaware	6.56%	1.68%	2.53%	-3.48%	14.09%	0.0881
Florida	2.13%	0.74%	1.12%	1.50%	-1.14%	0.0312
Georgia	3.17%	0.77%	1.15%	-0.82%	2.71%	0.0349
Hawaii	2.01%	0.52%	0.79%	1.66%	-2.26%	0.0182
Idaho	3.21%	0.84%	1.27%	0.14%	2.69%	0.0406
Illinois	3.59%	0.99%	1.46%	0.27%	1.51%	0.0423
Indiana	6.06%	1.56%	2.34%	0.36%	2.63%	0.0655
Iowa	2.28%	0.60%	0.89%	0.51%	1.31%	0.0268
Kansas	6.82%	3.93%	4.32%	-19.55%	44.89%	0.0432
Kentucky	3.22%	0.84%	1.25%	0.30%	1.77%	0.0364
Louisiana	2.36%	0.62%	0.91%	-0.55%	2.81%	0.0295
Maine	4.02%	1.14%	1.70%	6.41%	-6.74%	0.0315
Maryland	2.28%	0.66%	0.99%	1.55%	-1.68%	0.0241
Massachusetts	6.25%	1.61%	2.43%	42.68%	-0.32%	0.0621
Michigan	10.75%	2.64%	3.99%	5.29%	-4.25%	0.0897
Minnesota	4.22%	1.15%	1.73%	1.64%	-0.32%	0.0442
Mississippi	3.76%	0.93%	1.38%	0.45%	1.21%	0.0380
Missouri	1.64%	0.45%	0.68%	-0.44%	2.69%	0.0256
Montana	3.09%	0.87%	1.29%	0.71%	2.11%	0.0412
Nebraska	2.36%	0.62%	0.94%	0.29%	1.75%	0.0304
Nevada	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
New Hampshire	5.88%	1.65%	2.47%	3.26%	-1.98%	0.0579
New Jersey	5.45%	1.45%	2.20%	7.46%	-7.31%	0.0427
New Mexico	3.23%	0.87%	1.30%	1.10%	0.14%	0.0352
New York	13.21%	3.41%	5.17%	32.48%	-36.21%	0.0799
North Carolina	4.10%	1.07%	1.60%	-0.60%	3.78%	0.0494
North Dakota	4.03%	1.02%	1.54%	0.48%	4.31%	0.0552
Ohio	2.26%	0.62%	0.93%	0.27%	0.76%	0.0267
Oklahoma	2.17%	0.59%	0.87%	0.11%	1.76%	0.0270
Oregon	2.92%	0.88%	1.33%	0.98%	0.46%	0.0377
Pennsylvania	4.87%	1.34%	2.01%	1.71%	-0.80%	0.0527
Rhode Island	3.65%	1.04%	1.57%	4.79%	-5.22%	0.0318
South Carolina	2.85%	0.74%	1.13%	-0.16%	1.74%	0.0332
South Dakota	1.75%	0.47%	0.71%	0.07%	2.03%	0.0279
Tennessee	3.50%	0.82%	1.22%	-2.37%	7.43%	0.0464
Texas	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
Utah	3.09%	0.75%	1.14%	-0.43%	2.37%	0.0342
Vermont	2.72%	0.80%	1.18%	3.13%	-2.95%	0.0243
Virginia	1.65%	0.45%	0.68%	-0.26%	1.52%	0.0217
Washington	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
West Virginia	5.78%	1.54%	2.34%	3.59%	-4.01%	0.0551
Wisconsin	4.77%	1.31%	1.96%	5.08%	-4.95%	0.0395
Wyoming	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
Average U.S.	4.21%	1.14%	1.72%	1.23%	0.03%	0.0452

TABLE 13B: Revenue Neutral Tax Reform Eliminating Corporate Income Taxes under Medium Elasticity Assumption

	% Δ in Capital	% Δ in Labor	% Δ in Output	% Δ Land Prices	% Δ in t_ℓ	Fraction of S&L Revenue
Alabama	1.99%	0.52%	0.78%	-0.92%	8.14%	0.0323
Alaska	12.68%	2.93%	4.41%	15.10%	-7.18%	0.0901
Arizona	2.72%	0.78%	1.17%	1.07%	2.83%	0.0342
Arkansas	3.04%	0.78%	1.17%	-0.41%	8.89%	0.0447
California	4.87%	1.33%	2.00%	0.47%	7.77%	0.0613
Colorado	1.20%	0.32%	0.48%	-0.28%	2.88%	0.0178
Connecticut	6.68%	1.81%	2.73%	6.78%	-1.53%	0.0623
Delaware	6.10%	1.56%	2.35%	-3.23%	22.71%	0.0881
Florida	1.95%	0.68%	1.02%	1.38%	1.68%	0.0312
Georgia	2.94%	0.72%	1.07%	-0.77%	5.70%	0.0349
Hawaii	1.86%	0.49%	0.74%	1.54%	0.12%	0.0182
Idaho	2.79%	0.73%	1.11%	0.14%	5.92%	0.0406
Illinois	3.26%	0.90%	1.34%	0.27%	4.80%	0.0423
Indiana	5.49%	1.40%	2.12%	0.33%	7.92%	0.0655
Iowa	1.89%	0.49%	0.74%	0.43%	3.05%	0.0268
Kansas	3.38%	0.91%	1.35%	0.92%	4.71%	0.0432
Kentucky	2.90%	0.75%	1.13%	0.27%	5.67%	0.0364
Louisiana	2.18%	0.57%	0.84%	-0.52%	5.79%	0.0295
Maine	3.74%	1.05%	1.57%	5.97%	-3.32%	0.0315
Maryland	2.12%	0.61%	0.92%	1.43%	0.85%	0.0241
Massachusetts	5.87%	1.51%	2.28%	1.36%	5.31%	0.0621
Michigan	10.01%	2.45%	3.70%	4.97%	3.85%	0.0897
Minnesota	3.81%	1.04%	1.56%	1.49%	3.90%	0.0442
Mississippi	3.41%	0.84%	1.25%	0.42%	5.00%	0.0380
Missouri	1.48%	0.42%	0.62%	-0.38%	4.76%	0.0256
Montana	2.52%	0.70%	1.05%	0.60%	4.32%	0.0412
Nebraska	1.99%	0.52%	0.79%	0.23%	3.64%	0.0304
Nevada	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
New Hampshire	5.47%	1.53%	2.31%	3.06%	1.94%	0.0579
New Jersey	5.09%	1.36%	2.06%	6.95%	-3.16%	0.0427
New Mexico	2.91%	0.77%	1.17%	0.98%	4.46%	0.0352
New York	12.40%	3.19%	4.85%	30.60%	-23.35%	0.0799
North Carolina	3.79%	0.98%	1.48%	-0.56%	8.52%	0.0494
North Dakota	3.22%	0.83%	1.23%	0.39%	7.40%	0.0552
Ohio	2.09%	0.57%	0.86%	0.23%	3.20%	0.0267
Oklahoma	1.94%	0.51%	0.78%	0.08%	4.51%	0.0270
Oregon	2.63%	0.79%	1.19%	0.86%	3.62%	0.0377
Pennsylvania	4.52%	1.25%	1.88%	0.95%	4.39%	0.0527
Rhode Island	3.41%	0.98%	1.47%	4.53%	-2.05%	0.0318
South Carolina	2.65%	0.69%	1.04%	-0.16%	4.68%	0.0332
South Dakota	1.43%	0.38%	0.58%	0.06%	3.42%	0.0279
Tennessee	3.21%	0.74%	1.13%	-2.17%	11.20%	0.0464
Texas	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
Utah	2.83%	0.69%	1.03%	-0.39%	5.45%	0.0342
Vermont	2.48%	0.71%	1.08%	2.83%	-0.64%	0.0243
Virginia	1.53%	0.42%	0.64%	-0.25%	3.30%	0.0217
Washington	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
West Virginia	5.34%	1.43%	2.14%	3.32%	2.76%	0.0551
Wisconsin	4.37%	1.18%	1.79%	4.67%	-0.91%	0.0395
Wyoming	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
Average U.S.	3.87%	1.05%	1.57%	1.12%	4.25%	0.0452

TABLE 13C: Revenue Neutral Tax Reform Eliminating Corporate Income Taxes under Low Elasticity Assumption

	% Δ in Capital	% Δ in Labor	% Δ in Output	% Δ Land Prices	% Δ in t_ℓ	Fraction of S&L Revenue
Alabama	1.58%	0.42%	0.63%	-0.75%	15.00%	0.0323
Alaska	10.64%	2.44%	3.70%	13.02%	16.34%	0.0901
Arizona	2.19%	0.63%	0.94%	0.86%	9.75%	0.0342
Arkansas	2.28%	0.58%	0.87%	-0.31%	17.30%	0.0447
California	3.95%	1.08%	1.61%	0.40%	20.16%	0.0613
Colorado	0.95%	0.25%	0.37%	-0.24%	5.79%	0.0178
Connecticut	5.55%	1.51%	2.28%	5.65%	12.26%	0.0623
Delaware	5.00%	1.28%	1.92%	-2.62%	41.30%	0.0881
Florida	0.81%	0.20%	0.30%	0.22%	2.85%	0.0312
Georgia	2.40%	0.58%	0.87%	-0.63%	12.32%	0.0349
Hawaii	1.51%	0.40%	0.60%	1.26%	5.49%	0.0182
Idaho	8.13%	3.50%	6.83%	6.12%	11.84%	0.0406
Illinois	2.57%	0.70%	1.05%	0.24%	11.64%	0.0423
Indiana	4.23%	1.09%	1.64%	0.29%	18.41%	0.0655
Iowa	1.24%	0.33%	0.49%	0.28%	5.83%	0.0268
Kansas	2.45%	0.66%	0.98%	0.67%	11.28%	0.0432
Kentucky	2.24%	0.58%	0.87%	0.21%	13.65%	0.0364
Louisiana	1.77%	0.46%	0.68%	-0.37%	12.39%	0.0295
Maine	3.07%	0.85%	1.28%	4.92%	4.17%	0.0315
Maryland	1.74%	0.50%	0.75%	1.19%	6.59%	0.0241
Massachusetts	4.91%	1.27%	1.90%	1.19%	17.90%	0.0621
Michigan	8.19%	2.02%	3.03%	4.20%	20.70%	0.0897
Minnesota	2.93%	0.80%	1.20%	1.14%	12.36%	0.0442
Mississippi	2.64%	0.65%	0.97%	0.31%	12.68%	0.0380
Missouri	1.15%	0.32%	0.47%	-0.30%	9.01%	0.0256
Montana	1.62%	0.45%	0.68%	0.38%	7.79%	0.0412
Nebraska	1.34%	0.35%	0.53%	0.15%	6.80%	0.0304
Nevada	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
New Hampshire	4.53%	1.28%	1.91%	2.63%	10.59%	0.0579
New Jersey	4.25%	1.15%	1.71%	5.88%	6.03%	0.0427
New Mexico	2.24%	0.60%	0.91%	0.76%	13.20%	0.0352
New York	10.29%	2.66%	4.02%	25.58%	3.29%	0.0799
North Carolina	3.07%	0.80%	1.20%	-0.45%	18.75%	0.0494
North Dakota	2.00%	0.51%	0.77%	0.25%	11.87%	0.0552
Ohio	1.69%	0.45%	0.70%	0.19%	8.52%	0.0267
Oklahoma	1.48%	0.39%	0.58%	0.06%	9.98%	0.0270
Oregon	2.03%	0.62%	0.93%	0.68%	9.98%	0.0377
Pennsylvania	3.71%	1.02%	1.54%	1.34%	65.80%	0.0527
Rhode Island	2.85%	0.81%	1.23%	3.74%	5.10%	0.0318
South Carolina	2.16%	0.56%	0.84%	-0.15%	11.23%	0.0332
South Dakota	0.93%	0.26%	0.38%	0.04%	5.61%	0.0279
Tennessee	2.55%	0.59%	0.89%	-1.70%	19.21%	0.0464
Texas	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
Utah	2.24%	0.55%	0.83%	-0.31%	12.05%	0.0342
Vermont	1.97%	0.57%	0.86%	2.25%	4.26%	0.0243
Virginia	1.24%	0.34%	0.52%	-0.22%	7.28%	0.0217
Washington	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
West Virginia	4.29%	1.15%	1.71%	2.71%	17.04%	0.0551
Wisconsin	3.46%	0.95%	1.41%	3.73%	7.55%	0.0395
Wyoming	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000
Average U.S.	3.09%	0.84%	1.26%	0.90%	13.17%	0.0452

TABLE 14A: Revenue Neutral Tax Reform Eliminating Property Taxes under High Elasticity Assumption

	% Δ in Capital	% Δ in Labor	% Δ in Output	% Δ Land Prices	% Δ in t_ℓ	Fraction of S&L Revenue
Alabama	6.50%	1.68%	2.53%	-3.86%	17.09%	0.1222
Alaska	39.66%	8.04%	12.29%	1.64%	2.31%	0.3301
Arizona	21.23%	5.58%	8.50%	-4.35%	19.59%	0.3073
Arkansas	8.37%	2.07%	3.14%	-2.06%	13.15%	0.1512
California	18.94%	4.83%	7.32%	-6.98%	23.65%	0.2733
Colorado	18.18%	4.42%	6.71%	-12.55%	34.99%	0.3232
Connecticut	36.10%	8.56%	13.13%	-5.83%	17.42%	0.3886
Delaware	9.17%	2.32%	3.49%	-5.67%	21.74%	0.1489
Florida	20.38%	6.56%	10.01%	2.39%	14.13%	0.3607
Georgia	21.14%	4.67%	7.08%	-17.81%	38.59%	0.2952
Hawaii	14.74%	3.66%	5.53%	5.30%	-3.59%	0.1663
Idaho	14.08%	3.50%	5.30%	-2.28%	16.62%	0.2616
Illinois	25.17%	6.16%	9.37%	-13.28%	33.79%	0.3853
Indiana	24.17%	5.64%	8.60%	-9.79%	27.19%	0.3490
Iowa	64.06%	4.10%	6.21%	0.00%	14.01%	0.3443
Kansas	19.55%	4.87%	7.99%	-1.12%	15.33%	0.3139
Kentucky	11.00%	2.74%	4.12%	-1.21%	10.67%	0.1651
Louisiana	11.15%	2.74%	4.15%	-5.72%	20.21%	0.1735
Maine	40.55%	9.61%	14.75%	7.19%	1.79%	0.4019
Maryland	20.88%	5.50%	8.35%	-0.36%	10.63%	0.2720
Massachusetts	28.57%	6.58%	10.02%	-18.82%	37.52%	0.3474
Michigan	38.85%	8.33%	12.74%	-19.50%	33.02%	0.4110
Minnesota	21.01%	5.25%	7.99%	-1.29%	13.88%	0.2923
Mississippi	17.36%	3.96%	6.00%	-4.23%	16.15%	0.2353
Missouri	11.51%	3.03%	4.58%	-5.89%	24.83%	0.2340
Montana	17.87%	4.60%	6.98%	0.47%	16.00%	0.4274
Nebraska	17.39%	4.26%	6.47%	-2.08%	17.97%	0.3685
Nevada	11.49%	3.16%	4.79%	-7.47%	27.87%	0.2182
New Hampshire	52.58%	11.95%	18.44%	-57.55%	73.70%	0.6588
New Jersey	46.67%	10.33%	15.90%	-13.85%	23.72%	0.4612
New Mexico	8.72%	2.27%	3.44%	1.66%	3.26%	0.1252
New York	43.07%	9.70%	14.91%	47.07%	-47.04%	0.3233
North Carolina	14.56%	3.60%	5.43%	-7.02%	23.33%	0.2192
North Dakota	10.10%	2.48%	3.75%	0.45%	11.56%	0.2882
Ohio	19.34%	4.84%	7.34%	-8.55%	25.76%	0.2851
Oklahoma	9.74%	2.48%	3.75%	-1.34%	11.63%	0.1637
Oregon	21.65%	6.00%	9.15%	-3.59%	22.09%	0.3603
Pennsylvania	21.55%	5.47%	8.30%	-5.43%	19.65%	0.2864
Rhode Island	38.84%	9.40%	14.43%	-4.65%	16.29%	0.4210
South Carolina	19.65%	4.70%	7.16%	-12.13%	31.35%	0.2860
South Dakota	13.74%	3.50%	5.29%	-1.68%	18.36%	0.3988
Tennessee	13.21%	2.92%	4.40%	-12.36%	34.88%	0.2276
Texas	25.70%	5.40%	8.21%	-21.34%	39.35%	0.3727
Utah	17.77%	4.01%	6.09%	-9.92%	26.46%	0.2560
Vermont	36.88%	9.14%	14.00%	1.97%	10.56%	0.4237
Virginia	18.91%	4.73%	7.19%	-13.58%	36.64%	0.3100
Washington	22.76%	5.59%	8.52%	-4.43%	17.00%	0.3005
West Virginia	16.44%	4.16%	6.30%	4.17%	0.09%	0.1954
Wisconsin	34.55%	8.17%	12.50%	3.68%	6.38%	0.3723
Wyoming	21.02%	5.56%	8.46%	2.50%	12.62%	0.3738
Average U.S.	23.10%	5.70%	8.66%	-6.92%	22.67%	0.3151

TABLE 14B: Revenue Neutral Tax Reform Eliminating Property Taxes under Medium Elasticity Assumption

	% Δ in Capital	% Δ in Labor	% Δ in Output	% Δ Land Prices	% Δ in t_ℓ	Fraction of S&L Revenue
Alabama	5.96%	1.54%	2.31%	-3.53%	25.67%	0.1222
Alaska	37.08%	7.52%	11.47%	2.55%	23.43%	0.3301
Arizona	19.32%	5.09%	7.73%	-3.74%	35.54%	0.3073
Arkansas	7.40%	1.84%	2.78%	-1.79%	22.68%	0.1512
California	17.40%	4.43%	6.72%	-6.23%	38.88%	0.2733
Colorado	16.34%	3.98%	6.03%	-11.10%	46.72%	0.3232
Connecticut	33.36%	7.92%	12.11%	-4.55%	35.84%	0.3886
Delaware	8.52%	2.15%	3.25%	-5.27%	33.00%	0.1489
Florida	18.42%	5.94%	9.03%	2.42%	33.59%	0.3607
Georgia	19.43%	4.30%	6.50%	-16.17%	50.50%	0.2952
Hawaii	13.54%	3.36%	5.07%	4.97%	11.52%	0.1663
Idaho	12.10%	3.00%	4.54%	-1.89%	27.79%	0.2616
Illinois	22.62%	5.55%	8.41%	-11.57%	47.08%	0.3853
Indiana	21.59%	5.05%	7.67%	-8.45%	40.86%	0.3490
Iowa	13.70%	3.32%	5.04%	0.10%	23.34%	0.3443
Kansas	16.84%	4.20%	6.34%	-0.79%	28.50%	0.3139
Kentucky	9.88%	2.45%	3.71%	-1.07%	22.25%	0.1651
Louisiana	10.25%	2.53%	3.80%	-5.23%	31.68%	0.1735
Maine	37.00%	8.77%	13.45%	7.57%	22.27%	0.4019
Maryland	19.20%	5.05%	7.68%	-0.13%	27.73%	0.2720
Massachusetts	26.57%	6.12%	9.32%	-17.07%	51.83%	0.3474
Michigan	35.76%	7.66%	11.71%	-17.07%	47.40%	0.4110
Minnesota	18.73%	4.69%	7.12%	-0.93%	29.20%	0.2923
Mississippi	15.57%	3.55%	5.36%	-3.66%	29.29%	0.2353
Missouri	10.31%	2.72%	4.10%	-5.22%	36.02%	0.2340
Montana	14.18%	3.67%	5.54%	0.50%	25.02%	0.4274
Nebraska	14.31%	3.50%	5.30%	-1.60%	27.71%	0.3685
Nevada	10.59%	2.92%	4.42%	-6.82%	39.65%	0.2182
New Hampshire	48.01%	10.94%	16.84%	-50.96%	77.27%	0.6588
New Jersey	42.92%	9.50%	14.61%	-11.38%	39.16%	0.4612
New Mexico	7.82%	2.04%	3.08%	1.51%	13.97%	0.1252
New York	39.97%	9.01%	13.83%	44.81%	-14.23%	0.3233
North Carolina	13.37%	3.29%	4.98%	-6.37%	36.48%	0.2192
North Dakota	7.96%	1.96%	2.96%	0.38%	18.23%	0.2882
Ohio	17.68%	4.42%	6.70%	-7.64%	39.81%	0.2851
Oklahoma	8.66%	2.20%	3.33%	-1.17%	22.17%	0.1637
Oregon	19.24%	5.33%	8.11%	-3.14%	38.03%	0.3603
Pennsylvania	19.86%	5.04%	7.65%	-5.42%	36.01%	0.2864
Rhode Island	35.74%	8.68%	13.28%	-3.29%	34.40%	0.4210
South Carolina	18.03%	4.34%	6.56%	-10.95%	44.68%	0.2860
South Dakota	11.00%	2.80%	4.23%	-1.26%	26.27%	0.3988
Tennessee	12.02%	2.65%	4.01%	-11.18%	45.40%	0.2276
Texas	23.06%	4.84%	7.36%	-18.84%	49.08%	0.3727
Utah	16.12%	3.64%	5.51%	-8.83%	38.90%	0.2560
Vermont	32.99%	8.17%	12.52%	2.57%	28.55%	0.4237
Virginia	17.31%	4.34%	6.59%	-12.25%	49.42%	0.3100
Washington	20.62%	5.07%	7.70%	-3.80%	31.91%	0.3005
West Virginia	15.06%	3.80%	5.77%	3.97%	16.52%	0.1954
Wisconsin	31.07%	7.35%	11.22%	4.03%	24.81%	0.3723
Wyoming	17.35%	4.60%	6.98%	2.25%	24.70%	0.3738
Average U.S.	20.99%	5.18%	7.85%	-6.06%	38.16%	0.3151

TABLE 14C: Revenue Neutral Tax Reform Eliminating Property Taxes under Low Elasticity Assumption

	% Δ in Capital	% Δ in Labor	% Δ in Output	% Δ Land Prices	% Δ in t_ℓ	Fraction of S&L Revenue
Alabama	4.71%	1.21%	1.83%	-2.77%	43.21%	0.1222
Alaska	29.40%	5.99%	9.12%	4.79%	57.64%	0.3301
Arizona	14.74%	3.90%	5.89%	-2.34%	63.60%	0.3073
Arkansas	5.45%	1.36%	2.04%	-1.29%	40.01%	0.1512
California	13.61%	3.47%	5.24%	-4.53%	66.99%	0.2733
Colorado	12.20%	2.97%	4.49%	-8.06%	67.20%	0.3232
Connecticut	25.86%	6.16%	9.39%	-1.48%	65.82%	0.3886
Delaware	6.93%	1.75%	2.64%	-4.23%	56.44%	0.1489
Florida	7.24%	1.65%	2.48%	1.35%	23.46%	0.3607
Georgia	15.16%	3.36%	5.07%	-12.10%	72.00%	0.2952
Hawaii	10.62%	2.63%	3.99%	4.11%	40.25%	0.1663
Idaho	14.85%	5.09%	9.32%	4.77%	45.74%	0.2616
Illinois	16.73%	4.12%	6.22%	-7.88%	69.11%	0.3853
Indiana	15.75%	3.69%	5.60%	-5.58%	63.21%	0.3490
Iowa	8.56%	2.09%	3.14%	0.19%	36.15%	0.3443
Kansas	11.55%	2.89%	4.36%	-0.27%	48.86%	0.3139
Kentucky	7.43%	1.85%	2.78%	-0.73%	43.68%	0.1651
Louisiana	8.12%	2.00%	3.01%	-3.99%	54.39%	0.1735
Maine	27.65%	6.59%	10.06%	8.29%	53.56%	0.4019
Maryland	15.03%	3.96%	6.00%	0.46%	58.90%	0.2720
Massachusetts	21.14%	4.89%	7.40%	-12.37%	76.89%	0.3474
Michigan	27.32%	5.89%	8.96%	-10.70%	70.07%	0.4110
Minnesota	13.68%	3.43%	5.19%	-0.31%	54.73%	0.2923
Mississippi	11.56%	2.63%	3.98%	-2.47%	52.15%	0.2353
Missouri	7.74%	2.05%	3.08%	-3.83%	56.71%	0.2340
Montana	8.64%	2.23%	3.38%	0.39%	37.24%	0.4274
Nebraska	9.14%	2.25%	3.38%	-0.88%	41.59%	0.3685
Nevada	8.45%	2.34%	3.53%	-5.27%	63.25%	0.2182
New Hampshire	35.57%	8.19%	12.53%	-33.51%	82.57%	0.6588
New Jersey	32.43%	7.25%	11.06%	-4.62%	62.29%	0.4612
New Mexico	5.90%	1.54%	2.33%	1.18%	34.08%	0.1252
New York	31.00%	7.03%	10.72%	38.11%	36.88%	0.3233
North Carolina	10.50%	2.59%	3.91%	-4.79%	61.56%	0.2192
North Dakota	4.83%	1.20%	1.79%	0.25%	27.29%	0.2882
Ohio	13.64%	3.41%	5.16%	-5.52%	65.24%	0.2851
Oklahoma	6.40%	1.63%	2.46%	-0.81%	41.38%	0.1637
Oregon	14.03%	3.89%	5.91%	-1.84%	64.10%	0.3603
Pennsylvania	15.60%	3.96%	6.00%	-3.22%	65.80%	0.2864
Rhode Island	27.31%	6.65%	10.15%	-0.05%	63.14%	0.4210
South Carolina	14.06%	3.38%	5.10%	-8.13%	68.98%	0.2860
South Dakota	6.77%	1.72%	2.60%	-0.72%	37.06%	0.3988
Tennessee	9.30%	2.05%	3.09%	-8.48%	65.22%	0.2276
Texas	16.96%	3.57%	5.42%	-13.19%	64.94%	0.3727
Utah	12.27%	2.78%	4.20%	-6.47%	61.13%	0.2560
Vermont	23.75%	5.92%	9.01%	3.62%	55.65%	0.4237
Virginia	13.44%	3.37%	5.11%	-9.14%	72.81%	0.3100
Washington	15.55%	3.83%	5.80%	-2.30%	57.47%	0.3005
West Virginia	11.74%	2.96%	4.49%	3.34%	47.17%	0.1954
Wisconsin	22.66%	5.39%	8.20%	4.44%	53.18%	0.3723
Wyoming	11.06%	2.94%	4.44%	1.67%	41.54%	0.3738
Average U.S.	15.91%	3.92%	5.95%	-3.98%	64.79%	0.3151

TABLE 15A: Impact of Underlying Economic Variables on Growth of State Output when Different Types of Taxes are Eliminated and Replaced with Land Rent Taxes*
(High Elasticity Assumption)

	State and Local Tax on Capital[a]	State and Local Tax on Labor[b]	State and Local Sales Tax[c]	State and Local Personal Inc. Tax[d]	State and Local Corp. Income Tax[e]	State and Local Property Tax[f]
Intercept	-0.8628	-0.1226	-0.2883	-0.1137	-0.0355	-0.7781
	(-20.62)	(-4.33)	(-7.33)	(-3.42)	(-0.88)	(-16.87)
Fraction Labor Income	0.8672	0.2752	0.2574	0.0802	0.0282	0.7712
	(20.34)	(9.54)	(6.42)	(2.37)	(0.68)	(16.40)
Fraction Capital Income	1.3127	0.2984	0.4745	0.1425	0.0273	0.9604
	(19.79)	(6.65)	(7.60)	(2.70)	(0.42)	(13.13)
State Income divided by 10,000	-0.0709	-0.0467	-0.0439	-0.0242	-0.0110	-0.0499
	(-19.30)	(-18.81)	(-12.70)	(-8.30)	(-3.08)	(-12.33)
Fraction Taxes from Sales Tax	-0.0002	0.0002	0.2098	0.0277	0.0047	0.0002
	(-0.02)	(0.03)	(21.81)	(3.41)	(0.47)	(0.01)
Fraction of Taxes from Pers. Inc. Tax	-0.0047	0.0023	0.0161	0.2279	-0.0032	-0.0050
	(-0.50)	(0.36)	(1.82)	(30.45)	(-0.34)	(-0.48)
Fraction Taxes from Corp. Inc. Tax	0.3247	-0.1561	-0.0084	0.0351	0.4186	0.1203
	(7.63)	(-5.42)	(-0.21)	(1.04)	(10.14)	(2.57)
Fraction of Taxes from Property Tax	0.2168	-0.1470	0.0060	0.0236	0.0108	0.2798
	(20.85)	(-20.89)	(0.62)	(2.86)	(1.07)	(24.40)
Tax Revenue divided by 1,000	0.0624	0.0410	0.0381	0.0241	0.0117	0.0440
	(25.35)	(24.63)	(16.45)	(12.32)	(4.91)	(16.19)
R-Square	0.987425	0.976028	0.975068	0.979693	0.855568	0.983356

*OLS Regressions with Percentage Change in Output as LHS variable. T-statistics are in parenthesis.
[a] Using results from Table 8a.
[b] Using results from Table 9a.
[c] Using results from Table 10a.
[d] Using results from Table 12a.
[e] Using results from Table 13a.
[f] Using results from Table 14a.

TABLE 15B: Impact of Underlying Economic Variables on Growth of State Output when Different Types of Taxes are Eliminated and Replaced with Land Rent Taxes*
(Medium Elasticity Assumption)

	State and Local Tax on Capital[a]	State and Local Tax on Labor[b]	State and Local Sales Tax[c]	State and Local Personal Inc. Tax[d]	State and Local Corp. Income Tax[e]	State and Local Property Tax[f]
Intercept	-0.9781	-0.1695	-0.3384	-0.1373	-0.0766	-0.8222
	(-24.50)	(-6.17)	(-9.37)	(-4.09)	(-4.25)	(-18.58)
Fraction Labor Income	0.9857	0.3183	0.3154	0.1056	0.0768	0.8172
	(24.23)	(11.36)	(8.56)	(3.08)	(4.18)	(18.11)
Fraction Capital Income	1.3941	0.3344	0.5114	0.1655	0.0738	0.9926
	(22.02)	(7.67)	(8.92)	(3.11)	(2.58)	(14.14)
State Income divided by 10,000	-0.0625	-0.0445	-0.0414	-0.0227	-0.0098	-0.0451
	(-17.85)	(-18.45)	(-13.07)	(-7.71)	(-6.22)	(-11.61)
Fraction Taxes from Sales Tax	0.0021	0.0002	0.1946	0.0270	-0.0014	0.0023
	(0.22)	(0.03)	(22.05)	(3.30)	(-0.32)	(0.21)
Fraction of Taxes from Pers. Inc. Tax	-0.0057	0.0018	0.0146	0.2144	-0.0078	-0.0051
	(-0.64)	(0.30)	(1.80)	(28.39)	(-1.94)	(-0.51)
Fraction Taxes from Corp. Inc. Tax	0.3214	-0.1427	-0.0102	0.0373	0.3668	0.1342
	(7.92)	(-5.10)	(-0.28)	(1.09)	(20.01)	(2.98)
Fraction of Taxes from Property Tax	0.1942	-0.1399	0.0052	0.0221	0.0063	0.2526
	(19.57)	(-20.47)	(0.58)	(2.65)	(1.42)	(22.96)
Tax Revenue divided by 1,000	0.0557	0.0393	0.0359	0.0229	0.0105	0.0402
	(23.71)	(24.30)	(16.91)	(11.63)	(9.93)	(15.44)
R-Square	0.987137	0.976419	0.976409	0.977082	0.963204	0.982314

*OLS Regressions with Percentage Change in Output as LHS variable. T-statistics are in parenthesis.
[a] Using results from Table 8b.
[b] Using results from Table 9b.
[c] Using results from Table 10b.
[d] Using results from Table 12b.
[e] Using results from Table 13b.
[f] Using results from Table 14b.

TABLE 15C: Impact of Underlying Economic Variables on Growth of State Output when Different Types of Taxes are Eliminated and Replaced with Land Rent Taxes*
(Low Elasticity Assumption)

	State and Local Tax on Capital[a]	State and Local Tax on Labor[b]	State and Local Sales Tax[c]	State and Local Personal Inc. Tax[d]	State and Local Corp. Income Tax[e]	State and Local Property Tax[f]
Intercept	-0.6949	-0.0957	0.0038	-0.0818	0.0082	-0.4422
	(-9.80)	(-2.40)	(0.03)	(-0.97)	(0.10)	(-4.05)
Fraction Labor Income	0.7817	0.2746	0.0941	0.0588	0.0084	0.5258
	(10.81)	(6.77)	(0.81)	(0.68)	(0.10)	(4.72)
Fraction Capital Income	0.7024	0.0695	-0.3016	0.0912	-0.0574	0.2481
	(6.24)	(1.10)	(-1.67)	(0.68)	(-0.44)	(1.43)
State Income divided by 10,000	-0.0446	-0.0409	-0.0399	-0.0199	-0.0090	-0.0362
	(-7.18)	(-11.74)	(-4.00)	(-2.70)	(-1.25)	(-3.78)
Fraction Taxes from Sales Tax	-0.0192	-0.0114	0.1340	0.0243	-0.0072	-0.0208
	(-1.11)	(-1.18)	(4.83)	(1.18)	(-0.36)	(-0.78)
Fraction of Taxes from Pers. Inc. Tax	0.0077	0.0082	0.0443	0.1931	0.0009	0.0181
	(0.48)	(0.92)	(1.73)	(10.23)	(0.05)	(0.73)
Fraction Taxes from Corp. Inc. Tax	0.1155	-0.1928	-0.2055	0.0522	0.2830	-0.0146
	(1.60)	(-4.76)	(-1.78)	(0.61)	(3.40)	(-0.13)
Fraction of Taxes from Property Tax	0.1364	-0.1223	0.0118	0.0177	0.0028	0.1845
	(7.73)	(-12.36)	(0.41)	(0.85)	(0.13)	(6.79)
Tax Revenue divided by 1,000	0.0428	0.0374	0.0343	0.0188	0.0081	0.0328
	(10.25)	(15.97)	(5.13)	(3.81)	(1.68)	(5.11)
R-Square	0.934256	0.949807	0.746422	0.843397	0.463223	0.83642

*OLS Regressions with Percentage Change in Output as LHS variable. T-statistics are in parenthesis.
[a] Using results from Table 8c.
[b] Using results from Table 9c.
[c] Using results from Table 10c.
[d] Using results from Table 12c.
[e] Using results from Table 13c.
[f] Using results from Table 14c.

TABLE 16A: Impact of Underlying Economic Variables on Change in Land Prices when Different Types of Taxes are Eliminated and Replaced with Land Rent Taxes*
(High Elasticity Assumption)

	State and Local Tax on Capital[a]	State and Local Tax on Labor[b]	State and Local Sales Tax[c]	State and Local Personal Inc. Tax[d]	State and Local Corp. Income Tax[e]	State and Local Property Tax[f]
Intercept	4.3665	11.9993	7.3689	3.4493	-0.5209	1.7650
	(7.45)	(9.21)	(6.69)	(4.24)	(-0.81)	(2.91)
Fraction Labor Income	-5.1195	-15.7397	-8.1835	-3.1230	0.4010	-2.1715
	(-8.57)	(-11.85)	(-7.29)	(-3.77)	(0.61)	(-3.51)
Fraction Capital Income	-2.7774	-9.2175	-4.1535	-2.6324	0.1534	-0.5337
	(-2.98)	(-4.46)	(-2.37)	(-2.04)	(0.15)	(-0.55)
State Income divided by 10,000	-0.2498	0.6352	0.1423	0.0170	-0.0444	-0.2764
	(-4.85)	(5.55)	(1.47)	(0.23)	(-0.79)	(-5.19)
Fraction Taxes from Sales Tax	0.2140	0.6809	-1.8242	-0.3387	0.0253	0.0773
	(1.49)	(2.13)	(-6.77)	(-1.70)	(0.16)	(0.52)
Fraction of Taxes from Pers. Inc. Tax	0.2736	0.9946	-0.1056	-1.8507	0.0388	0.0825
	(2.07)	(3.39)	(-0.42)	(-10.12)	(0.27)	(0.60)
Fraction Taxes from Corp. Inc. Tax	-1.2928	-0.9864	0.8598	-1.3787	0.7715	0.2479
	(-2.16)	(-0.74)	(0.76)	(-1.66)	(1.19)	(0.40)
Fraction of Taxes from Property Tax	-0.8949	1.6279	-0.7751	-0.3797	0.0882	-0.7364
	(-6.14)	(5.02)	(-2.83)	(-1.88)	(0.55)	(-4.89)
Tax Revenue divided by 1,000	0.2416	-0.7545	-0.1750	-0.1214	0.1017	0.2996
	(7.00)	(-9.84)	(-2.70)	(-2.53)	(2.71)	(8.40)
R-Square	0.860523	0.927406	0.85701	0.866865	0.379391	0.741458

*OLS Regressions with Percentage Change in Land Prices as LHS variable. T-statistics are in parenthesis.
[a] Using results from Table 8a.
[b] Using results from Table 9a.
[c] Using results from Table 10a.
[d] Using results from Table 12a.
[e] Using results from Table 13a.
[f] Using results from Table 14a.

TABLE 16B: Impact of Underlying Economic Variables on Change in Land Prices when Different Types of Taxes are Eliminated and Replaced with Land Rent Taxes*
(Medium Elasticity Assumption)

	State and Local Tax on Capital[a]	State and Local Tax on Labor[b]	State and Local Sales Tax[c]	State and Local Personal Inc. Tax[d]	State and Local Corp. Income Tax[e]	State and Local Property Tax[f]
Intercept	3.9397	11.9748	7.5078	3.4516	-0.2015	1.5578
	(7.10)	(9.15)	(8.66)	(4.25)	(-0.78)	(2.77)
Fraction Labor Income	-4.6346	-15.6676	-8.4331	-3.1112	0.1367	-1.9314
	(-8.19)	(-11.74)	(-9.54)	(-3.76)	(0.52)	(-3.37)
Fraction Capital Income	-2.5170	-9.2081	-4.8777	-2.6480	0.1503	-0.4635
	(-2.86)	(-4.43)	(-3.54)	(-2.05)	(0.36)	(-0.52)
State Income divided by 10,000	-0.2422	0.6455	0.2797	0.0269	-0.1026	-0.2585
	(-4.97)	(5.62)	(3.67)	(0.37)	(-4.53)	(-5.24)
Fraction Taxes from Sales Tax	0.2122	0.6699	-1.7862	-0.3487	0.0270	0.0774
	(1.56)	(2.09)	(-8.43)	(-1.75)	(0.42)	(0.56)
Fraction of Taxes from Pers. Inc. Tax	0.2580	0.9824	-0.0413	-1.8501	-0.0574	0.0738
	(2.06)	(3.33)	(-0.21)	(-10.13)	(-0.98)	(0.58)
Fraction Taxes from Corp. Inc. Tax	-1.1067	-1.0685	0.8284	-1.4043	0.6703	0.2638
	(-1.96)	(-0.80)	(0.93)	(-1.70)	(2.55)	(0.46)
Fraction of Taxes from Property Tax	-0.7638	1.5922	-0.6328	-0.3923	0.0331	-0.6419
	(-5.53)	(4.89)	(-2.93)	(-1.94)	(0.51)	(-4.59)
Tax Revenue divided by 1,000	0.2323	-0.7667	-0.2507	-0.1302	0.1178	0.2795
	(7.11)	(-9.95)	(-4.91)	(-2.72)	(7.75)	(8.45)
R-Square	0.84777	0.926882	0.908568	0.86731	0.712559	0.734281

*OLS Regressions with Percentage Change in Land Prices as LHS variable. T-statistics are in parenthesis.
[a] Using results from Table 8b.
[b] Using results from Table 9b.
[c] Using results from Table 10b.
[d] Using results from Table 12b.
[e] Using results from Table 13b.
[f] Using results from Table 14b.

TABLE 16C: Impact of Underlying Economic Variables on Change in Land Prices when Different Types of Taxes are Eliminated and Replaced with Land Rent Taxes*
(Low Elasticity Assumption)

	State and Local Tax on Capital[a]	State and Local Tax on Labor[b]	State and Local Sales Tax[c]	State and Local Personal Inc. Tax[d]	State and Local Corp. Income Tax[e]	State and Local Property Tax[f]
Intercept	2.4314	10.2235	5.5435	3.4957	-0.0756	1.1203
	(5.55)	(7.81)	(5.98)	(4.24)	(-0.32)	(2.55)
Fraction Labor Income	-3.0086	-14.4639	-6.9527	-3.1151	0.0457	-1.3724
	(-6.74)	(-10.84)	(-7.35)	(-3.71)	(0.19)	(-3.06)
Fraction Capital Income	-1.1939	-5.0557	-0.5385	-2.7037	-0.0322	-0.4458
	(-1.71)	(-2.43)	(-0.36)	(-2.07)	(-0.08)	(-0.64)
State Income divided by 10,000	-0.2198	0.6674	0.2699	0.0490	-0.0860	-0.2149
	(-5.71)	(5.80)	(3.31)	(0.67)	(-4.18)	(-5.58)
Fraction Taxes from Sales Tax	0.1881	0.8554	-1.5684	-0.3818	0.0122	0.0549
	(1.75)	(2.67)	(-6.92)	(-1.89)	(0.21)	(0.51)
Fraction of Taxes from Pers. Inc. Tax	0.1627	0.8760	-0.1628	-1.8443	-0.0443	0.0550
	(1.65)	(2.97)	(-0.78)	(-9.96)	(-0.84)	(0.55)
Fraction Taxes from Corp. Inc. Tax	-0.4258	0.0579	1.6647	-1.4758	0.5501	0.2771
	(-0.95)	(0.04)	(1.76)	(-1.76)	(2.30)	(0.62)
Fraction of Taxes from Property Tax	-0.4455	1.4712	-0.6451	-0.4264	0.0217	-0.4108
	(-4.09)	(4.52)	(-2.79)	(-2.08)	(0.37)	(-3.76)
Tax Revenue divided by 1,000	0.2076	-0.7970	-0.2786	-0.1526	0.0973	0.2271
	(8.05)	(-10.34)	(-5.10)	(-3.15)	(7.05)	(8.79)
R-Square	0.813107	0.930738	0.894453	0.864497	0.670896	0.720552

*OLS Regressions with Percentage Change in Land Prices as LHS variable. T-statistics are in parenthesis.
[a] Using results from Table 8c.
[b] Using results from Table 9c.
[c] Using results from Table 10c.
[d] Using results from Table 12c.
[e] Using results from Table 13c.
[f] Using results from Table 14c.

TABLE 17: A Comparison of National versus Unilateral Marginal Tax Reforms in the Average U.S. State ($\sigma_{k\ell} = 0.75$, $\sigma_{kn} = 0.5$)

		National Reform*			Unilateral State Reform**		
		10% Reduction	25% Reduction	50% Reduction	10% Reduction	25% Reduction	50% Reduction
Sales Tax	$\%\Delta k$	0.39%	0.97%	1.93%	1.21%	3.02%	6.07%
	$\%\Delta n$	0.16%	0.40%	0.78%	0.71%	1.77%	3.52%
	$\%\Delta y$	0.20%	0.50%	1.00%	0.79%	1.96%	3.92%
	$\%\Delta p$	-20.50%	-51.20%	-102.69%	-5.46%	-14.11%	-29.84%
	$\%\Delta t_\ell$	38.60%	96.15%	191.92%	11.86%	30.06%	61.66%
Personal Income Tax	$\%\Delta k$	0.22%	0.55%	1.10%	0.70%	1.72%	3.47%
	$\%\Delta n$	0.09%	0.23%	0.45%	0.41%	1.02%	2.04%
	$\%\Delta y$	0.11%	0.29%	0.58%	0.46%	1.13%	2.27%
	$\%\Delta p$	-11.55%	-29.37%	-58.98%	-3.19%	-7.93%	-16.61%
	$\%\Delta t_\ell$	21.77%	55.27%	110.68%	6.96%	17.12%	35.19%
Corporate Income Tax	$\%\Delta k$	0.19%	0.48%	0.96%	0.42%	1.06%	2.10%
	$\%\Delta n$	0.02%	0.04%	0.09%	0.12%	0.29%	0.58%
	$\%\Delta y$	0.05%	0.13%	0.26%	0.17%	0.44%	0.86%
	$\%\Delta p$	-2.35%	-5.96%	-11.84%	0.18%	0.43%	0.77%
	$\%\Delta t_\ell$	4.39%	11.16%	22.14%	-0.10%	-0.20%	-0.26%
Property Tax	$\%\Delta k$	1.09%	2.69%	5.27%	2.40%	5.94%	11.77%
	$\%\Delta n$	0.10%	0.24%	0.47%	0.65%	1.59%	3.06%
	$\%\Delta y$	0.30%	0.73%	1.40%	0.98%	2.40%	4.63%
	$\%\Delta p$	-13.50%	-33.65%	-67.28%	0.85%	1.36%	0.43%
	$\%\Delta t_\ell$	25.24%	62.92%	125.78%	-0.25%	0.66%	5.13%

* $\varepsilon_n = 0.25$, $\varepsilon_k = 1$ (In this simulation, the calibration leads to α=0.3017 and β=0.9058.)

** $\varepsilon_n = 1$, $\varepsilon_k = \infty$