Recent State Legislative Tax Changes In the Face of Recession

by Robert Buschman and David L. Sjoquist

I. Introduction

The period from 1990 to 2011 witnessed three recessions and two spells of substantial economic growth, conditions that are reflected in fluctuations in state tax revenue. Basic accounting implies that a state government can respond to decreases in revenue by reducing its expenditures, drawing down on reserves, or increasing taxes or fees. States varied in how they responded to the recent changes in revenue they faced during the Great Recession, with some states enacting substantial tax and fee increases, and others relying more heavily on cuts in expenditures and on use of reserves. In this report we explore the variation across states in legislative tax changes during the period 1999 to 2010, with a particular focus on changes made in the face of the Great Recession.1 In the next section, we describe the legislative changes that states made to their revenue system during the past decade. In Section III we present a simple framework that suggests what factors may explain differences in states’ legislative tax changes, while Section IV presents some evidence of how the factors are related to legislative tax changes in 2009-2010.

II. A Review of State Revenue Actions

The National Conference of State Legislatures reports annually estimates of the first year revenue effects of legislated changes in taxes (NCSL, various dates).2 We supplement the NCSL data with tax collections and population data from the U.S. Census Bureau, the latter in order to scale the tax changes to allow comparisons across states with disparate population sizes and state budgets.3

National Trends4

Consider first national trends in tax enactments from 1990 through 2010. As Figure 1 (next page) shows, the largest aggregate tax increases, measured as percentages, came in 1991 (generally effective in the states’ next fiscal year), around the time of a recession. As the economy

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1There are many descriptive analyses of how a state or states dealt with budget shortfalls (Braun, Johnson, and Ley (1993), Druker and Robinson (1993), Maag and Merriman (2003), Kalambokidis and Reschovsky (2005), Grizzle and Trogen (1994)).

2Tax changes are reported by the calendar year in which they were enacted. Revenue effects are for the following fiscal year unless otherwise stated. NCSL reports the revenue change for the year the legislative change becomes effective and for future years for legislative changes that are phased in over time. However, we consider the revenue change only for the year in which the legislative change became effective. If a tax change is phased in, the reported revenue effect would underestimate the actual revenue effect since only the first year effect is reported.

3We excluded three tax increases. In 1999, New Hampshire substantially increased the state property tax in response to a court ruling on school financing. Tax changes reported by NCSL for Alaska in 2006 and 2007, in the amounts of $992 million and $1.6 billion, respectively, relate to the introduction and later revision of the state’s petroleum profits tax. The changes were unusually large, amounting to 34 percent and 36 percent, respectively, of prior-year general fund revenue, and including these changes has a dramatic effect on coefficient estimates. In addition, NASBO reports for the same periods do not include revenue effects for these three tax changes, and the estimates could not be independently verified. As a result, the amounts above were omitted from the data used in the final regressions.

4This section is drawn from Buschman (2010).
expanded through the 1990s, aggregate increases became smaller, and then in 1995 the states began a seven-year string of aggregate tax cuts. That streak came to an end with the onset of the 2001 recession and aggregate tax changes have been positive every year since, though modest in size from 2004 through 2008. Legislative sessions in 2009 brought a dramatic rise in state legislative tax increases as many states faced growing budget gaps. Although smaller in percentage terms than the 1991 increases, aggregate net tax increases enacted in 2009 were nearly twice as large in dollar terms at $28.6 billion. This amounted to 3.7 percent of 2008 aggregate state tax collections.

It is important to note, however, that over 38 percent of the 2009 aggregate increase is attributable to California’s $10.98 billion net tax increase. Those increases were passed as the state faced a projected $42 billion deficit for fiscal 2009 and 2010. Excluding those in California, the aggregate tax increases of the other 49 states came to 2.3 percent of 2008 tax collections — not as dramatic, but still the highest percentage increase enacted in 18 years. For 2010, aggregate legislative tax changes were again positive, but more modest at $4 billion, or 0.6 percent of fiscal 2009 revenue.

Another consideration in evaluating national trends in state taxation is that these aggregate numbers mask considerable variation across the states. Figure 2 shows for each year since 1999 the mix of states raising or lowering taxes by more than 1 percent of the prior year’s collections. In 2002 and 2003, only one state cut taxes by more than 1 percent, while 18 and 21 states, respectively, raised taxes by more than 1 percent. During the period 2004 through 2008, an average of 10 states raised taxes more than 1 percent of prior-year revenue each year. However, in 2009, 24 states passed net tax increases of more than 1 percent, while only one state cut taxes by more than 1 percent. In 2009, half the states made only small net changes or no changes at all, but that is down from 39 states in 2008 and down from an average of 33 states each year from 1999 through 2008. In 2010, 12 states increased taxes by more than 1 percent, while only two states reduced taxes by at least 1 percent.

It is unsurprising that the numbers of states passing significant tax increases in 2009, compared with those cutting or making only small changes, is significantly higher than after the 2001 recession or at any time since 1999. As of January 2009, according to the NCSL, 34 states were projecting fiscal 2010 budget gaps totaling $84 billion, with 27 of those states projecting gaps of more than 5 percent of their general fund budgets. In November 2002, a year after the 2001 recession officially ended, 43 states were projecting budget gaps totaling $71 billion to $88 billion for fiscal 2004, according to Iris Lav and Nicholas Johnson, citing estimates from the NCSL. Yet the aggregate of net tax increases passed in 2003 was much smaller in dollar and percentage terms than in 2009, and only 21 states passed
increases of 1 percent or more. The difference in 2009 was that budget gap estimates were growing, and by the time most legislatures were assembling their fiscal 2010 budgets, they were looking for ways to close a gap of $143 billion, the NCSL reported.

According to the NCSL, projected budget gaps during enactment of fiscal 2011 state budgets were roughly $84 billion over 41 states. The summer 2011 review of state budget conditions cites improved, but not fully recovered, budget conditions. Fiscal 2010 year-end fiscal balances as a percentage of general fund spending increased over fiscal 2009, but when fiscal 2012 budgets were being prepared, the total projected budget gap was $91 billion. Thirty-eight states reported a budget gap, with 21 states reporting a budget gap of more than 10 percent.

**Trends by State and Tax**

For the period 1999 to 2001, more states cut taxes than increased them — 45 cuts and only 12 increases of more than 1 percent (Figure 2). With the onset of the 2001 recession, more states started to increase taxes, with fewer states decreasing than increasing taxes each year from 2002 through 2010, except for 2006. Over the entire period, 1999-2010, there were 136 net tax increases and 80 net cuts of more than 1 percent of the prior year’s tax revenue, for an average across the 50 states of 2.7 increases and 1.6 cuts. Cumulatively, 37 states enacted net legislative tax increases. New Hampshire had the largest cumulative total of net increases at 39.9 percent, while Minnesota had the greatest cumulative net decrease at -36.4 percent.

Over 2009 and 2010, when the effects of the Great Recession were most strongly felt, the number of states increasing taxes by more than 1 percent was 24 and 12, respectively, while only three states cut taxes by more than 1 percent. Cumulatively, 31 states had two-year net increases of more than 1 percent of the prior year’s tax revenue, five of which were larger than 10 percent, while only one state cut taxes by more than 1 percent. The largest two-year increase was 13.2 percent made by Arizona and the largest reduction was North Dakota’s 4 percent cut.

Map 1 (p. 630) categorizes the states by the sum of 2009 and 2010 legislative tax changes as a percentage of prior-year tax revenue. Ten states did not increase taxes (seven cut taxes, and three made no change), generally agricultural and natural resource states in the mid-section of the United States. The 14 states that increased taxes by less than 2 percent are more dispersed, with five in the upper Midwest, but otherwise no regional concentration. States that increased taxes by 2 to 4 percent and 4 to 6 percent generally lie in the eastern third of the country. Of the states that increased taxes by more than 6 percent, half are on the western edge of the country while the other five are above the Mason-Dixon Line, but scattered across the nation.

Table 1 (next page) shows tax changes by type of tax for 1999 through 2010, reporting the aggregate net change in each tax across all states. Core taxes refer to the personal income tax (PIT), the corporate income tax (CIT), and the sales tax. Non-core taxes are all other taxes. For the period 1999-2008, it was the PIT that was most heavily used for tax cuts, while non-core taxes were increased much more
than the core taxes. For 2009-2010, the PIT increased the most, but that reflects a very large $5.1 billion increase in California’s personal income tax in 2009. The combined aggregate increase in sales taxes and the CIT was slightly larger than the increase in non-core taxes. For the entire period 1999-2010, aggregate increases in core taxes were larger than increases in non-core taxes, but the large 2009 increases in PIT and sales taxes in California, the latter at $4.6 billion, more than account for the difference.

### III. Framework

The basic question that we address is what might explain state elected officials’ decisions on whether to increase taxes in response to a projected fiscal deficit. To answer that question, we follow James E. Alt and Robert C. Lowry (1994), and James M. Poterba (1994), and frame the issue as described below.

We assume that each political party has as its fiscal goal a fixed expenditure level given the long-term income level. However, the desired expenditure level differs between parties so that no expenditure/tax combination is optimal for both parties. Decreases in income, and thus in revenue, from long-term trend levels are considered temporary and are thus assumed to have no effect on the preferred level of expenditures. In the case of unified party government facing and a revenue decrease that cannot be offset with reserves or borrowing. It follows that the optimal response is to adjust tax policy to close the gap. If control is split between the parties, it becomes beneficial to adjust tax and expenditure policy to reach a compromise that is a Pareto-optimal combination, that is, a combination so that neither party can be better off without making the other party worse off.

The above analysis ignores the costs of temporarily increasing taxes and decreasing expenditures. Increasing taxes has several costs. First, increasing the tax rate will increase the excess burden. Second, since the tax may be seen as temporary, taxpayers may make large short-run adjustments in behavior to avoid the tax, thus requiring a larger increase in the tax rate to generate a given amount of revenue than would be needed if the change is viewed as being permanent. Also, there may be a fear that a tax increase that is billed as temporary could become semi-permanent and lead to increasing expenditures. If there are tax limitations or a supermajority requirement to passing a tax increase, or if a tax rate increase has to be approved by the voters, there will be costs to overcoming those limitations. Finally, to the extent that citizens oppose tax increases, there is a political cost to elected officials. It is also reasonable to assume that the marginal cost increases with the size of the legislative tax increase and that the costs of increasing taxes differ by political party because of the differences in preferences of the members of the two parties.

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6Braun, Johnson, and Ley (1993) discuss the cost of increasing taxes and cutting expenditures to address budget shortfalls.
Cutting expenditures also has costs because it reduces the benefits of public services. If offices are closed and staff dismissed, there will be costs, for example, for severance, reduced productivity resulting from the loss of institutional knowledge, and costs of rebuilding the staff once revenue recovers. If small cuts are made by such actions as temporarily cutting out travel or delaying investments, the effect on benefits will likely be small, as will the cost of reversing the cuts. But as cuts get larger, the costs are likely to increase more than in proportion to the cuts. As with taxes, the costs of cutting expenditures will likely differ by political party. In the case of split control in which the compromise mix of expenditures and taxes does not correspond to either party’s preferred mix, the marginal cost of reducing expenditures may be positive for Democrats, but negative for Republicans until the cuts are large.

### IV. Empirical Analysis

#### Factors and Data

To explain the difference in legislative tax changes across states and time, we created a panel data set consisting of observations of the 50 states for the period 2009-2010. The theoretical framework implies that the decision to increase taxes will be driven by the magnitude of the reduction in revenue because of a temporary decline in the economy, relative to the expenditure level. For convenience we refer to that as fiscal stress. To measure the level of fiscal stress, we use forecasted revenue (from the “Fiscal Survey of the States” published by the National Association of State Budget Officers) for the coming fiscal year — that is, the revenue forecast included in the governors’ budget requests less the revenue effects of any proposed tax changes included in the budget — to derive a net forecast of the revenue the state is expecting if no tax changes are made. We subtract the net forecasted revenue from the estimated revenue for the current fiscal year to derive the expected change in revenue, absent any discretionary tax changes. Equivalent variables were developed for expenditures.

We expect that states will first use reserves to address a revenue shortfall that results in a budget deficit. The larger the state’s reserves compared with the previous year’s expenditures, the smaller the expected increase in taxes. Reserves are measured by the sum of general fund and rainy day fund balances per capita. We use the lag of this variable, the actual per capita fiscal balances as of the prior year-end as reported in the “Fiscal Survey of the States.”

Regardless of the governor’s party, the percentage of tax increase was smaller when the legislature was controlled by Republicans than when controlled by Democrats.

Based on Alt and Lowry, and Poterba, we expected that the state reaction to a potential fiscal deficit would vary by the nature of the political control of state government. We created four classes of split government — a split legislature with a Democratic or Republican governor, and Democratic or Republican control of the legislature with a governor from the other party — and also two classes of one-party control — Democratic or Republican control of the legislature, with a governor of the same party.

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6There are other fund balances that a state government could draw on, as well as assets that it might sell. We are unable to include the value of these options.

7Two instances of independent governors as well as the nonpartisan, single-chamber Unicameral Legislature in Nebraska are treated as split legislative and government control.
Empirical Results

Table 2 (previous page) presents the average legislated percentage change in taxes by political control category, along with the frequency of occurrence of each control status, for the latest two years, 2009 and 2010. The largest average tax increase, 2.35 percent, was in states with complete Democratic control. Regardless of the governor’s party, the percentage increase was smaller when the legislature was controlled by Republicans than when controlled by Democrats. However, the smallest average increase was in states with a split legislature, particularly in states with a split legislature and a Republican governor. When one party controlled the legislature and the other party held the governorship, the tax increase was smaller with a Republican legislature and Democratic governor than the reverse. This table suggests that the political makeup of the state does affect legislative tax changes.

Figures 3 and 4 are plots of 2009 and 2010 legislative tax change per capita against then-current forecasted revenue per capita and lagged reserves per capita, respectively. As can be seen, the relationship is negative in both cases, as expected.

Table 3.

| Regression Results — Dependent Variable: Per Capita Legislative Tax Change |
|---------------------------------|------------------|
| Explanatory Variable            | 2009-2010        |
| CUR-REV                         | -0.207           |
|                                 | (0.189)          |
| FUT-REV                         | -0.207***        |
|                                 | (0.056)          |
| CUR-EXP                         | 0.124            |
|                                 | (0.078)          |
| FUT-EXP                         | 0.126***         |
|                                 | (0.043)          |
| RESERVES (lagged)               | -0.007           |
|                                 | (0.011)          |
| Constant                        | 47.648**         |
|                                 | (19.91)          |
| Observations                    | 100              |
| R-squared                       | 0.340            |

**Notes:** Standard errors in parentheses. *** indicates significance at the 1 percent level, ** at 5 percent, and * at 10 percent. Results are a Prais-Winsten regression with panel-corrected standard errors, correcting for groupwide heteroskedasticity, cross-sectional dependence, and AR(1).
To further explore the relationship, we regressed total legislative tax change per capita for 2009 and 2010 against variables measuring forecasted revenue, forecasted expenditures, and lagged reserves. The independent variables are the per capita difference between the previous year’s actual revenue or expenditure and current-year estimates (denoted CUR-REV and CUR-EXP) the per capita difference between current-year estimates and forecasted revenue and recommended expenditures (denoted FUT-REV and FUT-EXP) and lagged reserves per capita (RESERVES).

Table 3 contains the results. The coefficients all have the expected signs, but only the coefficients on FUT-REV and FUT-EXP are statistically significant. Together, tables 2 and 3 support the hypothesis that legislative tax increases are driven in part by the political makeup of the state, and by the degree of the state’s expected fiscal stress and the size of its reserves.

**References**


