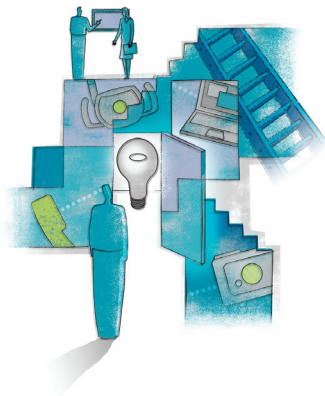


Stabilizing State and Local Budgets: A Proposal for Tax-base Insurance



WHEN THE FEDERAL GOVERNMENT SUFFERS a temporary economic downturn that reduces tax revenue, the optimal response is generally to finance temporarily higher deficits with borrowing. When states and localities suffer a temporary shock, however, they generally do not have this option because of their balanced budget rules. Instead they are forced to cut spending or raise taxes immediately — risking a vicious cycle that exacerbates the short-run slowdown. Moreover, since states cannot cut many of their programs because of federal mandates, any spending reductions may fall disproportionately on a narrow pool of programs, many of which serve low-income households.

Akash Deep and Robert Lawrence, economists at the Harvard Kennedy School, propose a federal tax-base insurance program to help states get through a sudden reduction in tax revenue. Just as the federal government provides workers with unemployment insurance, it should provide counties, cities, and states with tax-base insurance, a self-financing program that could allow communities to pool the risks of negative shocks to their tax base. States and localities would pay a small premium for the insurance, which would only take effect when tax revenues dropped below a certain threshold. Beyond that point, a proportion of the lost tax revenues would be compensated by the federal insurance program. The insurance would be based on changes in revenues that happen for economic reasons, factoring out any tax increases or tax cuts enacted by policymakers. Deep and Lawrence hope that such a policy would allow states and localities to pool the risk of tax-base shocks and thus be able to respond to short-term crises in ways beyond cutting spending or raising taxes.

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THE CHALLENGE

States and localities are much more vulnerable to economic shocks than is the nation as a whole. The nation has the advantage of a diverse set of industries; when some fail, others will succeed. In a state, and even more so in localities, malaise in one industry or even one company can have a profound ripple effect. When a Tyson Foods, Inc. poultry processing facility closed in Jacksonville, Florida in 2002, only 627 employees were directly laid off from the company, but the closure led to the loss of an estimated 1,029 additional jobs in the region. Total output lost was 2.2 times the output of the plant itself, and indirect tax revenue lost was six times higher than the value of taxes formerly paid by the poultry processing plant.

Over the past thirteen years, more than half of the states experienced a more than a 5 percent drop in tax revenue compared to the previous year. A third of the municipalities in Massachusetts, a fourth of counties in Wisconsin, and more than half of the counties in California had losses in tax revenue between 1999 and 2005. These drops in tax revenues may be the result of a plant closing, as was the case in Jacksonville, residents moving away from the region, or they could be the result of economic shocks affecting a larger geographic area.

When economic activity declines across the country, the federal government can respond by using monetary and fiscal policy stimulus to boost the economy, with the secondary benefit of helping to restore state and local tax revenues. But when the growth rates of states and localities deviate significantly from that of the entire nation, states and localities can face a much greater challenge. Growth rates in per capita income across states are only somewhat correlated with the national average. Correlations tend to be greatest for larger states such as Illinois, Minnesota, Ohio, and Pennsylvania, and smaller for states that are dependent on a few industries such as North Dakota, New Mexico, Wyoming, and Alaska. In total, between 1980 and 2006 about 62 percent of the variation in per capita state incomes was due to factors other than national fluctuations. In addition to having different growth rates, states also experience more variation in growth than does the nation as a whole. GDP growth rises more sharply and falls more steeply in the states.

States do not experience ups and downs in sync with the national economy and they also do not experience downturns at the same time as other states. Among states, the average correlation in tax revenues from year to year is only 0.39. Given the disparate nature of troubled state and local economies, the federal government would be hard-pressed to respond to every downturn across the country if it tried to do so in an ad hoc, ex post manner.

When states and localities suffer these swings in tax revenues, they have only two options: they can raise taxes quickly or they can cut spending quickly. For most states, deficit spending is not an option; all states except Vermont require balanced budgets. According to a study by James Poterba, for every dollar of deficit, states cut spending by 41 cents and institute tax increases of 90 cents. Moreover, since states have a large amount of mandatory spending, they can apply spending cuts only to a limited set of expenditures.

The programs cut during rough times usually end up being those that benefit low-income people, including Medicaid, child care, after-school programs, job training, and housing subsidies. In 2002 thirteen states cut child-care assistance programs in response to state fiscal crises, and in 2003 budget shortfalls led several states to cut Medicaid as well. In response to the recent fiscal crisis, 14 states have made or are proposing cuts in funding for education.

Theoretically, the federal government could assist states experiencing economic doldrums. In practice, however, this rarely happens. A look at the relationship between government transfers and changes in state tax revenues between 1993 and 2000 shows that the federal government does not have a good record of providing extra resources during tough times. In fact, the data indicate that transfers from the federal government actually decline when state tax revenues fall, which could be due to matching grants and other federal programs that vary directly with state expenditures. States may also base their taxes on federal taxes, causing the two to rise and fall together.

A NEW APPROACH

Deep and Lawrence propose that assistance for states and localities function more as an insurance market than as the current system of unpredictable federal transfers. States and localities would pay a premium to insure against losses in their own tax revenue that were caused by economic events but not due to policy changes. This contractual agreement would specify in advance what circumstances would trigger disbursement. Like any insurance program, the policy would have to set three key parameters: premium, threshold, and coverage.

1. The premium is the contribution each state would have to make in order to obtain the insurance. The authors suggest that the premium should be a flat percentage of taxes collected in the prior year.
2. The threshold is the level at which insurance would be triggered. The authors propose using a percent reduction in tax revenues from the previous year. The loss in tax revenue that states must bear before triggering the insurance is similar to a deductible.

TABLE 1.

The Cost of Providing Tax-base Insurance for Forty-nine States, 1993–2005

Cost as percentage of total tax revenue			
Coverage threshold (%)	50	80	100
0	0.28	0.45	0.57
-2	0.17	0.28	0.35
-4	0.11	0.18	0.22
Cost in billions of 2000 dollars			
0	18.03	28.84	36.05
-2	11.06	17.7	22.12
-4	7.09	11.34	14.17

Source: Deep and Lawrence 2008. Authors' calculations.

Key Highlights

The Challenge

States and localities face large fluctuations in tax revenue with few options to mitigate the pain of a decrease in tax revenues. Transfers from the federal government to states or from state governments to localities normally do little to alleviate the situation. Often these transfers increase in good times and fall when states and localities need the most help. Most states have limited ability to deal with losses in tax revenues because of balanced budget requirements. Their options are either to increase taxes or to reduce spending, often cutting programs and services to those who can least afford to lose them.

A New Approach

Akash Deep and Robert Lawrence of the Harvard Kennedy School propose a self-financing tax-base insurance program to assist states and localities suffering a loss of tax revenues. Tax-base insurance would allow states and localities to weather downturns without raising taxes or cutting spending for those most in need. The program would include the following features:

- **Coverage against a pre-determined percent** of the loss in state tax revenues in exchange for a premium equal to a flat proportion of total state tax revenues
- **Low costs** that would require between 0.10 and 0.57 percent of state tax revenues, depending on the generosity of coverage

Deep and Lawrence address two potential challenges common to insurance markets:

- **Moral Hazard:** States and localities enrolled in the program may have an incentive to cut taxes simply to collect benefits. The authors propose using policy-neutral revenue as a measure to trigger disbursement of funds, reducing perverse incentives for states to change their tax policies.
- **Adverse Selection:** There is a risk that only states and localities with the most volatile tax bases would join the program, driving up premiums. Based on evidence that both rich and poor states would benefit, the authors argue that many different kinds of entities would have an incentive to join.

3. The coverage is the portion of the tax revenue loss that would be covered. When not all the lost tax revenue is compensated, the remainder that the states address through traditional fiscal measures functions as a copay.

The authors estimate the cost as a percent of state tax revenues depending on the coverage and threshold levels (see Table 1). They simulate how this insurance market would have functioned over the past thirteen years under the most generous form of insurance: a threshold of 0 percent, meaning that even a small decline in tax revenues would trigger the insurance, and a coverage level of 100 percent, meaning that states and localities would be fully compensated for lost tax revenue.

Under these parameters, forty-five states would have received the benefit at least once in the last thirteen years, twenty-three states would have qualified twice, and two states would have received money four times. Both rich and poor states would have received support. Ranked by per capita income, the five poorest states would have received benefits eleven times, but the five richest states would also have triggered the insurance seven times. The insurance program—in this particularly generous form—would have cost \$36 billion, requiring premiums of only 0.57 percent of total state tax revenue in order to be self-financing. A less generous program would therefore have even lower costs.

In order to test the effects of using the same parameters for local governments, the authors look at fifty-seven counties in California, 351 municipalities of Massachusetts, and the seventy-two counties of Wisconsin. They model how the program would have performed over the six-year period from 1999 to 2005. Thirty of the fifty-seven counties examined in California would have received support. In Massachusetts, 110 municipalities would have been given benefits. In Wisconsin—the state with the least amount of volatility in tax revenue—nineteen of the

seventy-two counties would have benefitted.

The cost of the insurance program for localities of each state would depend on the volatility of its tax revenues and the correlation of that fluctuation across localities. In Massachusetts the correlation of changes in tax revenue across municipalities is only 0.03. Since that creates an ideal pool, costs would be just 0.09 percent of total revenue. In California, where volatility of tax revenue is high and the correlation among counties is 0.69, the higher volatility and lower level of risk diversity would require premium payments and would have to be at least 0.64 percent of total revenue to meet costs. Of course, as the authors point out, the pools could function across states. The program could even combine states and local units into one large pool, further diversifying risks.

Designing An Effective Insurance Market

As with any insurance market, the market for tax base insurance would face challenges of adverse selection and moral hazard. Deep and Lawrence propose mechanisms to minimize these problems.

Adverse Selection

It is possible that only those states and localities with the most volatile tax revenues would want to join the program, which would drive up insurance premiums. One way to solve this problem is by making participation mandatory, but the authors think it is possible to design a voluntary program that would be attractive enough to elicit interest from diverse states and localities. They point to evidence from their simulations that a diverse set of states would have benefited from the program.

Moral Hazard

Insurance can also lead to moral hazard. If states and localities knew they would be insured against tax revenue loss, they might engage in risky behavior that

The insurance policy would allow states and localities to pool the risk of tax-base shocks and thus be able to respond to short-term crises in ways beyond cutting spending or raising taxes.

would lead to more volatile revenues. Those actions would result in more claims, which would increase the costs of the program. The two main undesirable behaviors are (1) reducing tax rates even when tax revenues fall (or not increasing taxes when they otherwise would have) because they know that they will still be compensated, and (2) using less-stable tax bases to fund government expenses.

The first problem is largely solved by the unique way in which the authors would measure a change in tax revenue. They refer to their metric as “policy-neutral revenue,” i.e., the tax revenues that states would have collected absent any tax policy changes. Policy-neutral revenue is the net revenue after subtracting the effect of any new tax increases and adding the impact of tax cuts.

In their analysis the authors apply the concept of policy-neutral revenue to three states that had different reactions to losses in tax revenue. New Hampshire, did not make any tax changes when revenues fell in 1995, so it would have been paid the full amount of its lost revenue. In contrast, Montana experienced a \$3 million decline in tax revenues in 1996, but it also reduced taxes that year that would have led to a loss of \$36 million anyway. Since policy-neutral revenue was higher than the actual revenue of the previous year, Montana would

Ranked by per capita income, the five poorest states would have received benefits eleven times, but the five richest states would also have triggered the insurance seven times.

not have received an insurance payment. The same year, South Dakota made the opposite decision: the state chose to raise taxes in a time of falling revenues. Its actual revenue in 1996 was \$730 million, but it would have collected only \$678 million if not for the tax increase. The policy-neutral revenue—compared to the \$694 million collected in 1995—declined. Thus South Dakota would have received an insurance payment and would not have been penalized for its decision to raise taxes. The use of policy-neutral revenue would thus curb the incentive for states to cut taxes to increase the chances of eligibility.

The second possibility is that states would switch from more-stable tax bases, like sales taxes and property taxes, to less-stable tax bases, like income taxes and capital gains taxes. At the least, states that were already inclined to switch to an income tax would be more willing to do so if the volatility introduced by this switch was insured. In order to correct for this effect, the insurance program could use a risk-based premium rather than a flat rate of total revenue. The authors point out, however, that because the program does not completely cover lost revenues, states would still have a significant disincentive to switch to more unstable tax bases.

Implementation Questions and Concerns

How could the program further control for correlated risks?

Insurance schemes generally work better if risks are idiosyncratic rather than related to some larger set of circumstances that increases risk for many of the insured. In the case of the revenues of states and localities, risks are easier to insure if the fluctuations in tax revenues are unrelated. To some extent, the design of the program already counteracts the possibility of correlated risks. The policy-neutral revenue is calculated in nominal rather than real terms because inflation is a national rather than an idiosyncratic risk. The risk of inflation must be borne either by the states and localities, or through national fiscal and monetary policy.

Deep and Lawrence also provide evidence that fluctuations are not correlated enough to prevent a cost-effective insurance market. They add that the insurance program could take further steps to control for related risks. For example, the threshold could be set in relation to some national average so that a state or locality would have to have a higher percentage fall in tax revenues than the country as whole to qualify for benefits.

Will this policy prevent needed adjustment to new economic conditions?

The tax-base insurance is not meant to provide assistance to states that have unsustainable fiscal policy or to states whose economy is in long-term decline. Using policy-neutral revenue as the comparison for the previous year's actual revenues ensures that a decline will only be compensated once. A locality with a dying industry will receive payments each year as revenues decline, but only at the previous year's level. Once a new equilibrium is reached and revenues stop falling, the locality will not receive further funds despite its now lower economic level.

Why is this necessary if states can just set aside their own rainy day funds?

States currently do a limited degree of self-insuring by building up “rainy day” funds in good years and using these funds to cover deficits in bad years. But it is generally more efficient to insure through a combination of buffer savings, which spread risks across time, and an insurance policy, which spreads risks across a wider pool. In particular, insurance is more valuable than rainy day funds for rarer but larger negative shocks.

CONCLUSION

Stable tax revenues in states and localities can lead to more economic security for individuals who need it most. The limited options that states and localities have when confronted with an economic decline result in higher taxes and reduced services at a time when individuals are already experiencing the effects of the local downturn. Providing a way to ease state and local governments’ budgetary strain reduces the likelihood of a cut in services—services that often help those most in need.

Akash Deep and Robert Lawrence believe that their proposal for tax-base insurance could bring about greater stability. Their self-financing tax-base insurance program would offer protection against a loss in tax revenues while enforcing mechanisms to minimize perverse incentives. As the authors note, the program is not a panacea, but it can help state and local governments adjust more easily to changing economic circumstances. That can help make the transition easier for the residents of those areas as well.

Learn More About This Proposal

This policy brief is based on The Hamilton Project discussion paper, *Stabilizing State and Local Budgets: A Proposal for Tax-base Insurance*, which was authored by:

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