## The Alternative Minimum Tax can serve as an automatic stabilizer.

# The AMT's Silver Lining

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t first glance, the notion of an "alternative minimum tax" sounds wonderful. Who would not want an alternative to her everyday tax burden? Matters sour quickly upon realizing that the AMT is "alternative" in the same sense that drowning is the alternative to swimming: taxpayers are dragged into its reaches rather than opting in. Little surprise, then, that the federal AMT is nearly universally hated: Congress wants to patch it; academics want to kill it altogether.

But in recent years, almost certainly by accident, the AMT has developed into an important instrument of federalism, helping to stabilize state budgets by boosting them in hard times while tempering their rise in booms.

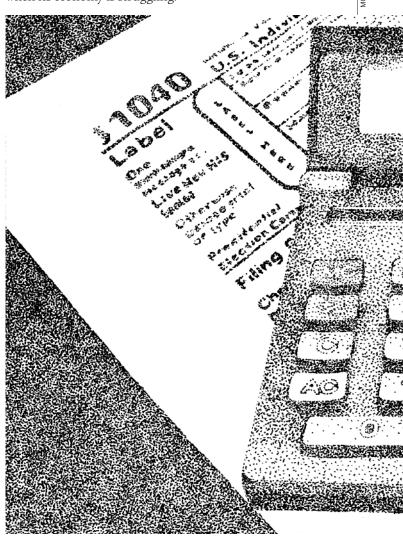
To understand this "stabilizer" function, it is helpful to take a step back and consider the many dilemmas of state finance in a federation. Economic downturns make for tough fiscal times for state and local governments. State belt-tightening has the potential to drive up unemployment and drive down consumer demand, further slowing the economy. As we write this article in the summer of 2010, we see a steady stream of headlines warning that state budget cuts threaten to delay economic recovery. The crisis underscores that any sensible strategy for managing the ups and downs of the business cycle should include some provision for ensuring that state revenues will ease the pain of recessions and slowdowns, rather than compounding it.

Accordingly, we argue that the federal government can play some role in stabilizing state budgets, leading us to the question of how best to design such an intervention. Simply shifting countercyclical programs such as unemployment insurance to the federal budget would be somewhat helpful (albeit at some cost to federalism), but would lead to undesirable distortions in state policymakers' incentives. Discretionary grants to hardhit states are unappealing because they may be too slow and tar-

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A longer discussion of this subject appears in the authors' forthcoming Stanford Law Review paper "Recessions and the Social Safety Net: The Alternative Minimum Tax as a Counter-Cyclical Fiscal Stabilizer."

geted more by politics than economic need. On the other extreme, a steady-state subsidy for state revenues — say, federal revenue-sharing along the lines of the Canadian model — contributes to overheating the economy during growth periods and distorts state budgets upward. The ideal instrument, then, is one that automatically directs federal dollars to a state only when its economy is struggling.



The federal tax system already contains a set of instruments that approximate this ideal. The Tax Code grants state taxpayers a deduction for the money they pay to their local government, which in effect is a federal matching grant for eligible state levies. We have found empirical evidence that the much-reviled Alternative Minimum Tax acts to shut off this matching grant when state economies are thriving. In combination, these provisions help target federal dollars to struggling states.

In light of the present crisis, we obviously do not claim that this support mechanism functions perfectly. Realistically, no stabilization policy could entirely protect states from a recession of this magnitude, but we acknowledge a number of current aspects of the AMT that likely reduce its efficacy. Thus, in a forthcoming *Stanford Law Review* paper, we suggest several policy tweaks — some at the federal level, some that could simply be adopted by states — that would make better use of the support offered by the Tax Code.

In any event, before policymakers inter the AMT or patch it beyond recognition, it is useful to consider whether we have any ready substitutes for its current role as a fiscal stabilizer for states.

#### WHY STABILIZATION?

Some macroeconomists believe that government has a role in remedying recessions through some form of stimulus, such as looser monetary policy, increased spending, tax cuts, or some combination of the three. There is little consensus in this realm, however. Microeconomists are more united in their view of recessions. The standard microeconomic story begins with the diminishing marginal utility of wealth: it hurts a lot more to lose a dollar when you have only 10 of them than when you have 10 million. If someone expects his income to fluctuate over time, he can ease the pain of the leanest times by setting aside some money when he has plenty of it. That is the usual story for why people save, borrow, or buy insurance against some disaster: all three are just ways of moving money from rich times to poor. These transfers are often referred to as fiscal "smoothing" because they level out the peaks and valleys of lifetime earnings

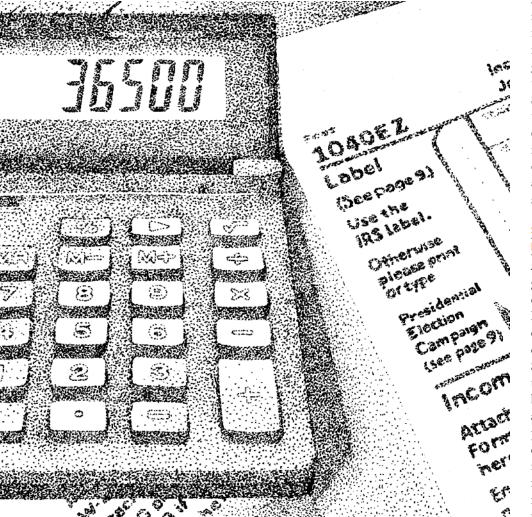
The problem is that there are often failures in the markets for individual borrowing, insurance, and even savings. It is awfully hard to buy individual "recession unemployment insurance" because the insurer cannot easily verify whether a person is unemployed due to the recession or because he just wants to stay home and eat beef jerky.

Government-provided insurance programs, known as "social insurance," may prove superior to privately provided insurance if they allow for larger pools in which to diversify the underlying risk, or where there is adverse selection due to information asymmetries about the underlying risk each per-

son faces. As a descriptive matter, social insurance is generally provided with respect to income losses resulting from involuntary unemployment or more general problems leading to poverty to the near exclusion of private insurance. Social insurance programs, generally targeted at the chronically poor or elderly populations, also exist in the health insurance market alongside private competitors. More-limited social insurance programs include food stamps and subsidized housing.

# STATE STRUGGLES DURING RECESSIONS

As recent experience shows, states struggle to provide effective social insurance during recessions. State revenues are largely tied to the business cycle: budgets get tighter just when the need for countercyclical spending increases. Studies show that state spending tends to fall just at those times when it would be most needed. Unfortunately, there are no viable state-level solutions to this problem. States might make up for revenue shortfalls by raising taxes, borrowing, or drawing from existing savings. However, those options are normatively unattractive, descriptively unlikely as a political matter, or both.



Tax increases, in the absence of any federal subsidy, will be a bad move on net economically for the state. Increases will also likely be politically unpopular. First, tax rates should be kept smooth over time in order to minimize deadweight losses. If revenue needs increase unexpectedly, the state should borrow, which allows it to spread the cost of meeting the need more evenly over time. States are also constrained in their ability to raise taxes by the possibility that individuals and businesses may exit the state in response to tax rate increases.

An obvious alternative to tax hikes for revenue-starved states is borrowing. Public borrowing can take on a variety of forms, ranging from a straightforward bank loan to the sale of bonds of various kinds. Borrowing, however, may be practically difficult. Just as the possibility of exit constrains state tax levels, so too does it limit states' opportunity to borrow. Indeed, under some conditions there is no difference between taxes and debt. After all, debts are simply promises to pay, which must be financed with future taxes. This principle is known to economists as "Ricardian equivalence." Assuming, then, that Ricardian equivalence holds, states cannot mitigate exit pressure by financing their expenditures through debt rather than current tax increases. Even if Ricardian equivalence is incomplete, expected future debts can still lead to high exit pressure by depressing housing prices.

Regardless of whether Ricardian equivalence holds, the factors that permit a state to borrow during downturns also may make borrowing at the state level normatively unattractive. Distortions in the political process may result in excess borrowing during both bad times and good. The cost of these distortions may well outweigh any benefits that would accrue from unconstrained debt-financed stimulus.

One well-known set of reasons for excess borrowing is tied to the incentive structure of rational voters and officials. Public debt gives rise to an intertemporal fiscal externality in which present voters do not fully take into account the costs of borrowing on succeeding residents. In addition to the intertemporal externality, state borrowing also involves some interjurisdictional externalities. Default by one state can increase credit costs for other states. Accordingly, each individual state may take on more debt, and correspondingly more default risk, than would an optimizing social planner.

Similarly, all officials have a limited time horizon in office. If the official wants to win reelection to extend that time, or ring up "rents" from interest groups while she holds power, then the value to her of enacting programs now will be much greater than the cost of paying for those programs after she is out of office. Term-limited officials in their final year, for example, have been found to be much freer with their constituents' money than others.

While federal officials also face these kinds of pressures, the dynamic is especially acute at the state and local level. Each subnational jurisdiction faces competitive pressure to deliver services now at a better price than its competitors. One way for local officials to compete successfully is to shift the tax cost of providing current services into the future. If Ricardian equivalence does not hold, voters might deem the official who uses debt to finance government to be outperforming the neighboring officials who raise taxes.

Given the political dynamics we have just described, it is unsurprising that many states have tied their officials' hands by sharply limiting their own capacity to take on debt, with important consequences for state stabilization capability. Few if any of these limits contain any facial exception for borrowing in times of great need. Whatever one's view of the normative desirability of borrowing, it is evident that the threat of excessive indebtedness has given rise to a legal system in which states are constrained in their ability to borrow at any time, including times when it is urgently needed.

Savings, such as through a state "rainy day" fund, serve as a possible crisis-funding alternative to tax increases and borrowing. Unfortunately, many of the dynamics that threaten to cause runaway borrowing also tend to undermine the usefulness of rainy day funds. All of the relevant actors, from individual voters to elected officials, have strong incentives to prefer current over deferred spending. It is not surprising that data show few states save nearly enough money to protect themselves against later downturns.

### TRADITIONAL FEDERAL SOLUTIONS AND THEIR DISCONTENTS

This all suggests an important role for the federal government in social insurance. A federal role is especially significant in the modern interconnected economy in which the fiscal struggles of one state may lead to trouble for the state's neighbors and trading partners.

There is an extensive and generally inconclusive literature on the role of the federal government in redistributing wealth. While centralized redistribution mitigates some problems, it also sacrifices other federalism values. For example, one set of federal policymakers cannot easily capture all social preferences for redistribution or social insurance; redistribution at the local level allows individuals to sort themselves according to their preferences.

An additional problem is that federal provision of social insurance induces moral hazard at the state policymaking level. Where insurance is provided federally, states are able to externalize much of the downside risk of their regulation. Since each state receives all of the benefit but pays little of the cost of establishing the common insurance pool, it actually has incentives to draw down the pool before others can do the same, leading it to enact ever-riskier policies. Because the taxing jurisdiction does not bear the full cost of its policies, it does not take into account the full extent of its costs to others, including potential cyclical effects. For instance, a state may be relatively indifferent to the possibility that the cost of bailing it out of a regional crisis could increase the federal government's own costs of borrowing, or even the chances of a national downturn, as its citizens would bear only a small fraction of the costs of either outcome.

The traditional solution to moral hazard in insurance is copayments, but partial federal-financing programs, such as matching grants, face serious challenges in this context. Matching grants can result in misallocation of federal dollars. For one, subsidies intended to be counter-cyclical are wasteful if they cannot be turned off when jurisdictions emerge from recession, diminishing federal resources available for insurance in regions still struggling. Additionally, since matching grants by definition require state expenditures, fiscally strapped states may draw less funding. As a result of these factors, partial financing may actually move money in the wrong direction, from places where the economy is struggling to those where it is succeeding. More generally, economists argue that federal supports raise state expenditures above the level state citizens would have chosen in an undistorted political market. Also, subsidies for state spending might lead to some inflationary pressure in boom times.

Making federal fiscal supports temporary or discretionary solves some of these problems, but raises others. Macroeconomists argue that the delays and political costs that attend enacting discretionary programs greatly reduce the effectiveness of any resulting expenditure. Perhaps the most important aspect of countercyclical spending is its timing. Discretionary programs mean that the timing of funds will depend on politics, not economic necessity. Discretionary spending can be too fast as well as too slow: if the downturn is prolonged, or the deepest state budget holes lag behind the onset of the decline, then immediate spending is not optimal.

Because of these concerns, experts claim that "automatic" stabilizers are much preferable to grant programs. For example, Christina Romer has found historical evidence that automatic stabilizers were considerably more effective than discretionary policies in recessions. Automatic stabilization by definition cannot pay out too fast, since it lasts exactly as long as the downturn lasts.

What is needed, then, is federal fiscal support for states that turns off automatically in good times, but turns on in downturns when the need for stimulus may outweigh the costs of policy distortions. Is it possible to design a state fiscal support that only operates when states need the money, keeping in mind that complex formulae that must be ruled on by bureaucrats are emphatically not automatic? Glad you asked.

#### THE AMT AS AN AUTOMATIC STABILIZER

Surprisingly, the federal AMT already acts as an automatic stabilizer. The AMT achieves its stabilizer effect by phasing out an existing federal matching grant for state revenues. Section 164 of the Tax Code allows an income tax deduction for the cost of taxes paid to state and local governments, known in the lingo as the "SALT" deduction. The SALT deduction acts like a federal matching grant for certain state tax revenues because, for every dollar a taxpayer pays her state and local governments in income and property taxes, she reduces her federal tax bill by \$1 times her marginal federal rate. For a taxpayer in the top federal bracket, each dollar of state income tax reduces her federal tax by 35 cents.

The AMT sometimes curtails the SALT subsidy. The AMT forces taxpayers to re-compute their tax burden under a somewhat different set of rules, paying whichever is higher. The AMT also disallows a number of the standard tax system's deductions and credits. However, it imposes a top marginal rate of only 28 percent.

An implication of this structure is that the AMT makes useless a number of deductions and exclusions available under the Code. Consider the example of Taxpayer A, who instead of taking the standard deduction and personal exemption, claims exemption for numerous children and itemizes his deductions, reducing his \$100,000 gross income to \$51,000 in taxable income. Taxpayer A's tax liability under the standard system is about \$9,088. The AMT does not permit exemption for additional dependents; suppose Taxpayer A's itemized deductions, too, are not permitted under the AMT. In that case, his AMT liability is \$13,858. Since that is the higher amount, he pays it. Thus, Taxpayer A is "subject" to the AMT, increasing his tax by about \$4,000. In effect, the AMT has "turned off" part of Taxpayer A's itemized deductions and personal exemptions.

Because of the AMT's large exclusion amount, the likelihood of being subject to AMT liability probably increases with income, at least at low and moderate income levels. Under the standard income tax, individual taxpayers pay no tax until they earn about \$10,000 because of the combination of the personal exemption and standard deduction. Under the AMT, there is no standard deduction, but the personal exemption is very large, so that an individual paid no tax in 2009 until she earned about \$46,700. (This exclusion amount is not indexed for inflation, which is why more and more people have become subject to AMT liability over the years.) Thus, if Taxpayer A's gross income were less than \$46,700, the AMT could not have affected him, because AMT liability for everyone earning less than \$46,700 is zero. And the AMT liability for those earning \$46,701 is only 26 cents. Thus, the likelihood of becoming "subject" to the AMT is the result of a combination of increasing income and increasing use of deductions and exemptions prohibited by the AMT. This connection between the AMT and income is central to our argument.

Turning back to the SALT deduction, the AMT modifies the SALT subsidy by reducing the size of the matching grant for economically thriving jurisdictions. The SALT deduction is not permitted under the AMT, and as we have just explained, the AMT only comes into play at higher income levels. Accordingly,

Table 1

#### The AMT as an Automatic Stabilizer

Effect on state revenues when the AMT operates as an automatic stabilizer

	SALT Deduction "Off"	SALT Deduction "On"
Gross Income	\$900	\$900
State Income Tax Rate	11%	16.5%
State Income Tax Amount	\$100	\$150
Reduction in Federal Tax (assume marginal rate of 33%)	\$0	\$50
State Tax Net of Federal Tax	\$100	\$100
Effective State Income Tax Rate	11%	11%

as incomes in a state rise, more and more of the state's taxpayers will exceed the AMT's personal exemption threshold, turning off some or all of their SALT deduction under the AMT. Conversely, as incomes fall, the AMT's effects will diminish, turning the SALT subsidy back on.

This variable, countercyclical subsidy has at least two distinct stabilization effects for states. First, it can mitigate most of the constraints states normally face in maintaining or increasing tax rates during downturns. The AMT/SALT combination allows states to achieve similar effective net-of-federal tax rates during crises, as we illustrate in Table 1.

The second effect of the AMT/SALT combination is to allow a careful state to increase taxes without reducing consumers' marginal propensity to spend on other consumer goods. Again, countercyclical federal subsidies act as interjurisdictional transfers, increasing the wealth of a region affected by a downturn. If the state absorbs no more than this transfer amount in increased taxes, consumer spending will be unaffected. Table 2 illustrates this. Alternately, even if the state does not increase its tax revenues or its spending, there will be some stimulative effect from the SALT deduction because the state's citizens will be the beneficiaries of transfers from less-affected parts of the country, raising their wealth available for consumption.

To see how the AMT works as an automatic stabilizer in this framework, note that because social insurance programs are normal goods, when the individual's income increases, so does his demand for the program. However, given that the application of the AMT is positively related to income, the amount of the federal subsidy will decline with income until it reaches zero. These two effects of changing income will have opposite effects on the quantity of the social insurance program demanded. Thus, in times of economic growth, while the person's income effect will induce him to demand more of the program, the price effect will induce him to demand less, as the AMT phases out the federal subsidy. In times of recession, as incomes drop, the income effect will induce a lower demand, while the price effect will induce a higher demand because the AMT phase-

#### Table 2

#### The AMT and Consumers

When used as an automatic stabilizer, the AMT maintains consumers' after-tax income.

	SALT Deduction "Off"	SALT Deduction "On"
Gross Income	\$900	\$900
State Tax Amount	\$100	\$150
Federal Tax Amount (assume marginal rate of 33%)	\$300	[\$300-(\$150 x .33)]= \$250
Total Tax Paid	\$400	\$400
Net After-Tax Income	\$500	\$500

out revives the federal subsidy. Thus, as a theoretical matter, the AMT is countercyclical, dampening demand swings caused by changes in income.

## **EMPIRICAL EVIDENCE OF THE** AMT'S STABILIZER EFFECTS

Theory and a dollar will get you a ride on the bus, however, so we look to the data for some empirical validation. If we compare the percentage of individuals who are subject to the AMT in a jurisdiction with the amount of spending on social insurance programs in that jurisdiction, our hypothesis suggests that higher AMT liability will reduce spending, due to the increased net-of-federal-tax cost of local taxes. This effect will be counter-cyclical to the extent that higher AMT liability occurs at the same time as higher state gross domestic product, and vice-versa. Thus, we first examine whether states with high GDP experienced higher AMT liability.

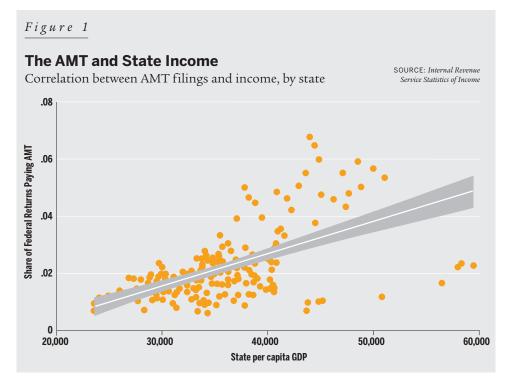
Using Internal Revenue Service Statistics of Income data from 2004 (the first year AMT data were collected) to 2007, we plot in Figure 1 the relationship between state per capita GDP and the fraction of income tax filers who paid a positive AMT on their federal return. The data include observations for all 50 states. In addition to the scatterplot, we provide a linear best-fit line through the data as well as its 95 percent confidence interval.

Figure 1 shows a statistically significant positive relationship between AMT incidence and state per capita income. We show a number of variations of this test in our Stanford Law Review paper, all consistent with the theory that higher GDP corresponds with higher AMT liability.

Next, we collected data on state per capita spending in four common social insurance categories: welfare spending, education spending, spending on hospitals, and spending on other public health programs. Because our four years of data provide a relatively small sample, we expect that our estimates will be relatively imprecise, limiting our ability to make strong inferences. That is, the large standard errors likely to be associated with our estimated coefficients suggest we will have low power, making it harder for us to reject the hypothesis that there is no relationship between AMT coverage and state spending.

To account for any effects of inflation on state spending, we use the Consumer Price Index to deflate all expenditure and income amounts to a constant price level. Because our outcome variables are per capita spending, which we use to provide estimates that are representative of average effects across the nation, we perform weighted least squares using state population as the weight in each regression.

Our empirical specification includes our AMT coverage variable and the state income variable as discussed above. Also, to isolate the effect of AMT coverage, we include dummy variables for each state. These so-called state fixed effects allow for heterogeneity across states in their baseline level of spending. For idiosyncratic reasons, such as cultural differences or other path dependencies, some states may naturally spend more on social insurance programs than others. The state fixed effects allow us to control for these differences, which



is important if the differences are not random with respect to the AMT coverage variable. We also include dummy variables for each year, to allow for the possibility that spending may be systematically higher (or lower) in a given year across all states. Reasons for this may include national macro economic changes or policy changes at the federal level that induce a change in spending everywhere.

Our first analysis looks at real (i.e., deflated) state per capita spending across education, welfare, hospitals, and public health in the aggregate. We first examine total AMT coverage. However, there is reason to believe that not everyone accurately predicts whether the AMT will be binding on him or her. This implies that errors in expectations will affect whether an individual supports spending or not. Our hypothesis is that higher-income people will be better able to predict that they will be affected by the AMT. To examine this, we considered five different measures of AMT coverage:

- the fraction of all federal returns paying a positive AMT amount;
- the fraction of all federal returns paying a positive AMT amount for individuals with incomes above \$50,000;
- the fraction of all federal returns paying a positive AMT amount for individuals with incomes above \$75,000;
- the fraction of all federal returns paying a positive AMT amount for individuals with incomes above \$100,000; and
- the fraction of all federal returns paying a positive AMT amount for individuals with incomes above \$200,000.

Our expectation is that we will observe greater precision of any AMT effect in the higher income ranges.

In every case, we find a negative relationship between AMT coverage and total per capita state spending. When examining all social spending together, the effect is statistically significant once the AMT share variable is calculated for filers with incomes of \$75,000 or above. As expected, the precision of the estimates improves as the AMT share is calculated for higher-income filers. We also find evidence that state spending on social insurance programs does appear to be a normal good, with positive per capita GDP coefficients, but the effect is not statistically significant. This is most likely due to the lack of precision that comes with our four-year sample.

In terms of the practical size of the effects we estimate, if the

fraction of AMT coverage among filers earning more than \$50,000 increased by a standard deviation, our results imply that total real per capita state spending would decline by about 4 percent. The comparable effect of an increase in the fraction of AMT filers with incomes above \$200,000 is an 8 percent decline in per capita spending. Thus, states in roughly the top one-sixth of the national distribution of AMT liability would spend 8 percent less on social insurance annually than the median state — tens of millions of dollars each year. The exact magnitude of these figures is less interesting, however, than the fact that the practical size of the effect we have identified is non-trivial from a policy perspective. We find even larger effects for health-related categories.

Thus, despite the fact that data limitations generate significant precision problems, we find robust support for our hypothesis that as AMT coverage increases, holding state per capita income constant, state spending on social insurance programs declines. This evidence is consistent with our claim that the AMT acts as a fiscal stabilizer.

#### CONCLUSION

The AMT is, we admit, an unlikely place to find a solution to the problem of state finance in times of crisis. Each of the more obvious candidates, however, has serious flaws. States cannot tax, borrow, or save enough to meet their residents' needs for social insurance. Other federal supports lead to moral hazard, are wasteful, or are too poorly timed to be effective. Thus, automatic stabilizers assume an important role in smoothing incomes. And, as the data suggest, the AMT is a powerful automatic stabilizer.

Accordingly, we would resist efforts to repeal or "patch" the AMT. Instead, we suggest that greater attention to the details of the AMT, and the tax-lawmaking process that surrounds it, can greatly improve state responsiveness to recessions.