



## **Response to the ITEP Critique of the BHI STAMP Model**

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On May 21, 2014, The Institute on Taxation and Economic Policy (ITEP) released a report entitled, “[STAMP is an Unsound Tool for Gauging the Economic Impact of Taxes.](#)” The report makes several criticisms of the Beacon Hill Institute (BHI) State Tax Analysis Modeling Program (STAMP<sup>®</sup>). In the following pages, BHI responds to the criticisms contained in the Executive Summary of the report.

**ITEP: As a “computable general equilibrium” (CGE) model, STAMP is grounded in a concept of perfect economic efficiency that bears little resemblance to reality. Moreover, the thousands of linkages between economic sectors built into STAMP are in many cases not well-studied and not subject to statistical testing.**

BHI: This is the kind of argument that one would expect from a college freshman who wants to show off to the class by challenging the theoretical basis of what he is being taught in Economics 101. What this too-clever-by-half student wouldn’t realize is that his argument would make it necessary to abandon all science. Consider, for example, Newton’s law of gravity. Because that law applies only to objects that fall in a perfect vacuum, this student – and ITEP – would have us abandon that law and any physical law that applies only under hypothetical conditions that can’t be attained in the real world. In this way of thinking, we can’t predict how long it would take a bowling ball to hit the ground when dropped from a tower, given that disturbing air currents would affect the descent of the ball on its way to the ground.

While we doubt that the ITEP writers think much about the deep issues in economic methodology, we would refer them to the methodological position taken by Milton Friedman in his “Essay on Positive Economics,” written more than 50 years ago and since accepted by every practicing economist. There Friedman, who would go on to win the Nobel Prize, explained that we can go nowhere in economics – or physics – unless we are willing to work with theories whose assumptions cannot be perfectly instantiated in a real world setting. To assume what ITEP calls “perfect economic efficiency” is not, as the ITEP writers argue, to ignore reality but rather to make economic research possible.

Mainstream economics makes several assumptions in modeling individual economic behavior, among them that people are rationally self-interested, that they know enough to make choices that serve their self-interest and that markets clear, which is to say that supply equals demand. Economists assume this kind of efficiency when they want to analyze policy changes, including, in particular, tax policy changes for their long-run effects. This is not to say that it is always appropriate to assume perfect efficiency – for example, when considering national policies aimed at correcting for an involuntary unemployment (more on this later). But it is appropriate – and necessary – when considering state policies when policy makers need to understand the long-run effects of those policies.

If ITEP wants to account for every “imperfection” in the economic system when modeling state tax policy then, as we might put it, they are “making the imperfect the enemy of the good.” As in physics, if one tries to account for every “disturbing” current in the economic system – which is to say, every “imperfection” – before saying anything about how a policy change might affect that system, then one simply ends up with nothing to say. The problem isn’t how to account for every imperfection in the economy. *The problem is getting a good enough fix on the economy to be able to do better than proceeding blindly without regard to underlying forces at work.*

One can suppose – or at least hope – that the authors of this report made it beyond Economics 101. If so, they should realize that every economics textbook makes the perfect efficiency argument in discussing tax policy. The reason is that textbook writers want to show how tax rate changes affect the economy in the long run and because, in the long run, “imperfect” – which is to say irrational – behavior regulates itself out of existence. Firms that ignore the bottom line – and consumers who spend recklessly – tend to mend their ways in the light of bitter experience.

Do we want to reject STAMP – with its assumptions of individual rationality – in favor of some other model in which people systematically make irrational choices without negative consequences? How about a model in which people go on working as hard as ever even when income tax rates approach 100%? Even the tax-and-spend crowd at ITEP should recognize that, at some point, as taxes approached this limit, work effort and reported earnings will go to zero. And why is that? Well, because people do make rational choices (as assumed by our model). And given that people do make rational choices, it becomes someone’s job to figure out how

they respond to tax rate increases. We happily plead guilty of injecting rationality into the decisions of the hypothetical taxpayers in our model.

As for “the thousands of linkages between economic sectors,” it is the very purpose of a CGE model to incorporate these linkages into the analysis being provided. Do we want to consider how a higher tax on cigarettes would affect the rest of the economy? If so, then we need to work within a CGE framework in which those linkages are accounted for. The suggestion that the linkages we recognize “are not well-studied and not subject to statistical testing” is nonsense. The linkages are obtained from IMPLAN, a noted and widely used input-output model.

Think what it would mean for policy makers to put policy proposals on hold while someone subjects every “inefficient” economic decision (perhaps including the decision to smoke cigarettes in the first place) and every economic linkage to scrutiny. Actual policy makers need to work with a model that provides the best possible description of how businesses and workers react to tax policy changes, given that policy making takes place in a real-time environment that sometimes calls for fast action by policy makers *and* given that responsible policy making requires attention to long-run effects. CGE models were created to serve that need.

This point brings to mind the hidden agenda behind ITEP’s criticism. Models like ours run against the grain of the ITEP mindset because they focus on the long run and because, in the long run, higher tax rates always create disincentives to work, save, consume and invest. It is not enough for us to stipulate that the resulting economic harm might well be outweighed by the benefits of the government spending made possible by the higher tax rates (see the next discussion). In order for a tax model to pass muster with ITEP, it must fit a narrative that focuses on the short run, inasmuch as the here-and-now always commands the most attention in the political arena, and it must incorporate a narrative whereby increased government spending, no matter how wasteful or productive, is always good for the economy (see below on “involuntary unemployment”).

**ITEP: STAMP’s unrealistic depiction of the public sector causes it to conclude that public investments like education and infrastructure are of relatively little value to state economies in both the short- and long-term. Government is modeled as a simplistic “pass-through” device that distributes tax dollars to households and discourages them from working in the process. This construction fits neatly with BHI’s stated mission to promote “limited government,” but it has also caused STAMP to produce estimates far out of line with more mainstream economic models.**

BHI: This is false. In 2006, [BHI used the STAMP model](#) to conduct simulations of three proposed tax increases that had been put before the Virginia legislature. Our model showed that these tax increases and the infrastructure spending they were intended to fund would, in fact, produce benefits in the form of new private and public sector jobs and increases in real disposable income. This puts the lie to the ITEP statement that we are in the business of

performing “analyses purporting to show that lower taxes, not raising them, will benefit state economies.” If we know that the purpose of a tax increase is to finance needed infrastructure spending then we will, as in this instance, show that raising taxes will benefit state economies.

It is significant that ITEP ignored our Virginia study. If ITEP had wanted to produce an honest critique of our work, rather than a hatchet job, we could have prevented them from making this false accusation by providing them a copy. In the table below, we identify the positive economic effects of a proposal to increase the Virginia motor vehicles sales tax from 3% to 5%; increase the minimum tax levied on the sale of a motor vehicle from \$35 to \$55; increase motor vehicle insurance license tax from 2.5% to 4.5%; collect new fees on drivers with poor driving records; and reallocate \$900 million in state funds to transportation projects. If our goal is only to promote “limited government,” we certainly didn’t do ourselves a favor with this analysis.

**The Fiscal & Economic Effects of the Tax Changes**

Variables	2010
State funds (\$m)	750
Local Funds (\$m)	27
Total (\$m)	777
Private Jobs	6,880
Government Jobs	3,380
Net Change in Jobs	10,260
Baseline Investment, (\$m)	160
Real Disposable Income (\$m)	1,196
Real Disposable Income per Capita (\$)	180

**ITEP:** BHI studies typically devote little if any attention to the impact of tax changes on government employees. In those few cases where BHI has published sufficient data to allow for an assessment of STAMP’s modeling of public sector employment, the results have been extremely inconsistent. STAMP has concluded that a \$1 million cut (or increase) will result in the firing (or hiring) of anywhere from 1 to 37 government employees. This huge degree of variation raises questions about the model’s robustness.

**BHI:** ITEP assumes that a government employee costs the same, whether that employee works for the state government or the local government, whether he works for the state of Nevada, the state of New York or any other state or whether he is employed to design bridges or monitor juvenile delinquents. In the eyes of the ITEP authors, a government engineer costs the same as a government social worker. A \$1 million change in tax revenue should always result in the same change in government employment. This is a simplistic and absurd assumption.

First, tax revenues do not support the same activities. States can use tax revenues to make transfers to households, to hire public employees, to purchase equipment, to enhance public infrastructure or for any number of purposes. For example, state gasoline tax revenues are generally dedicated to state transportation funds, which are subsequently spent on public roads and bridges. On the other hand, state income taxes go to the states' general funds, which are then disbursed among transfers, public employee compensation and infrastructure. One would not expect the same employment effect from a \$1 million change in the state income tax as from a \$1 million change in the state gas tax.

Second, differences exist between the labor intensity of state government spending across different states and different levels of government. Some states, such as Nevada, have a low labor intensity, while others, such as Virginia have a high labor intensity. Dollar for dollar, local government spending generally supports many more public employees than state government spending, due to the labor intensive nature of public education.

Other factors that determine the public employment effects of tax changes across states include the level of federal funding transferred to the state and the number of federal employees working in the state. Higher levels of each will tend to mitigate the overall effect of a loss in revenue on government employment in the state. Public sector wages also differ across states, with the result that the labor intensity of government spending will vary from state to state.

As for the offhand snip about the “few cases where BHI has published sufficient data to allow for an assessment of STAMP’s modeling of public sector,” here again ITEP shows that it is more about impugning our work than getting to the facts. Every spreadsheet we create provides data on changes in government employment, and every spreadsheet is available to anyone who asks to see it. We can surmise that ITEP never asked us for our spreadsheets for the simple reason that it didn’t want the facts to get in the way of its hyperbole.

**ITEP: BHI has built into STAMP an assumption that high-income workers are extremely sensitive to changes in income tax rates, and that those workers are far more sensitive than their lower-income neighbors to such changes. Both of these assumptions conflict with the findings of the nonpartisan Congressional Budget Office (CBO) and other experts.**

BHI: Again, this is a mischaracterization of what we do. None of our household income groups are assumed to be highly sensitive to changes in income tax rates, let alone “*extremely*” sensitive. Most households are, in fact, assumed to be quite *insensitive* to changes in income tax rates. As ITEP points out, our elasticities range from 17% for the lowest income groups to 50% only for the very highest.

That higher elasticity makes sense for the high-income group. First, high-income households have more options when it comes to deciding between whether to work or not to work than do low-income households. Second, high-income households are in higher tax brackets. Compare a two-earner household that makes \$400,000 a year with a two-earner household that makes

\$40,000 a year. The first household might pay 45 cents in federal and state taxes on each new dollar of income while the second might pay only 30 cents. Of the two households, which is more likely to pull back on its work effort if the state increases its tax rate by another percentage point? The first household, with a second-earner, who has to compare spending time at the country club with spending time in a cubicle; or, the second household, which is struggling to make ends meet? ITEP apparently believes that the response from either household would be identical.

Finally, ITEP is cherry-picking in its criticism. It notes that the CBO elasticities are higher than ours for high-income households but ignores the fact that the CBO elasticities are lower than ours for low-income households. Our lower elasticities for the lower income households dampen the economic effects of tax changes. Perhaps someone at ITEP wasn't all that careful about picking comparative data that support its case.

**ITEP: STAMP assumes that businesses' choice between hiring additional employees versus purchasing more machinery is heavily influenced by tax policy. Again, the degree of sensitivity to taxes assumed in STAMP is out of line with the best available estimates.**

BHI: We find this statement to be bewildering. Yes, tax changes influence the choice of hiring additional employees and purchasing new equipment in STAMP, but there is no scenario in which it is one decision versus the other. Perhaps the ITEP writers are unfamiliar with the workings of production functions in standard tax policy analysis.

Lowering state corporate income taxes does in fact make capital cheaper relative to labor, and STAMP, correspondingly, shows an increase in investment and a decrease in hiring. But the increase in investment causes the demand for labor to rise, with the result that both investment and hiring ultimately rise. The employment effect is diminished somewhat by the initial substitution of capital for labor. However, there is no situation in which businesses decide to purchase more machinery without also hiring additional employees. In this instance, businesses both purchase more machinery and hire additional employees.

In 2012, BHI used STAMP to simulate the effects of New York Senate Bill 04172 (S04172) which would have exempted businesses engaged in manufacturing, refining, mining, agriculture and commercial fishing from the state franchise tax. The STAMP analysis shows that S04172 would simultaneously increase private sector jobs by 1,871 and increase investment by \$434 million.

STAMP generally shows that lowering state corporate income taxes would lead to an increase in investment, but not to the detriment of private employment. Here ITEP not only overstates the sensitivity of business decisions in our model to tax changes but also fails to comprehend how our model treats business decisions relating to the purchase of machinery and the hiring of employees.

**ITEP: STAMP also assumes that consumers will quickly and dramatically shift their consumption toward out-of-state goods and services if prices in their own state rise as a result of a tax increase. This assumption is very loosely based on a pair of studies published over two decades ago that relied on national and international economic data. It ignores newer, state-level data that indicate a substantially lower level of responsiveness. BHI also assumes that consumers in different industries behave very similarly to one another, despite evidence in the literature (including the studies cited by BHI) that indicate this is not the case.**

BHI: We gather that ITEP is talking about our analysis of a proposal to eliminate the Rhode Island sales tax. If so, we can be particularly confident that the proposed would “quickly and dramatically” shift consumption from neighboring Massachusetts to Rhode Island. Our confidence in this assumption is reinforced by the success that “tax-free” New Hampshire has had building a retail business on the Massachusetts border.

Sometimes the selection of elasticities must reflect common sense as well as the latest research. It is not insignificant that Rhode Island has the smallest land mass of all U.S. states and that every point in the state is within close driving distance of many of the 10.3 million people who live in neighboring Massachusetts and Connecticut. We believe that this unique feature makes it reasonable to assume an influx of shoppers from both states, should Rhode Island reduce its sales tax to zero.

At any rate, this comment by ITEP is an example of its shotgun approach to attacking our work: First condemn our entire CGE methodology as “unrealistic.” Then say, in effect, that our methodology would be fine if we just picked what ITEP considers to be the right elasticities (i.e., measures of “responsiveness”). If ITEP had invited a debate about elasticities, we, as academicians, would have gladly considered ITEP’s suggestions. In fact, however, the only reason that ITEP brings up the topic of elasticities is that someone there realizes that the CGE methodology enjoys widespread academic respectability and that the only debate that academicians take seriously is over the choice of elasticities. The reason that ITEP must nevertheless at various points in its narrative condemn our CGE methodology, lock, stock and barrel, is the further realization that a debate over elasticities would garner their attack little notice by the media.

**ITEP: STAMP is incapable of estimating how a tax change will affect a state’s economy in the time period immediately following its enactment. The way in which BHI presents its results often gives the impression that the economic impact will be instantaneous, which makes tax cuts, for example, appear less costly than they actually are in the short-term. This has also allowed BHI to mask the fact that some tax plans they believe would be economically beneficial are guaranteed to shrink the economy in the short-term.**

BHI: Here again our purpose is to provide results that state policy makers can expect in the long run, after a tax change is implemented. To be sure, the immediate effects of a tax change on economic activity will be less in the short run than in the long run. But policy makers understand



that it is the long-run that matters. At any rate it is simply wrong for ITEP to say that a tax cut will shrink the economy in the short run, if not the long run. What it should say is that a tax cut will cause tax revenues to shrink more in the short run than in the long run.

**ITEP: STAMP's methodological shortcomings are reflected in its unreliable results. STAMP's findings have been contradicted by academic researchers, state revenue offices, and the actual track record of states that have followed BHI's recommended low-tax path.**

BHI: In fact, STAMP has a reputation for accuracy. A March 14, 2003 article in *The New York Sun* is illustrative. In discussing the Manhattan Institute's application of a STAMP model to the local property tax, the article said,

A fiscal policy analyst at the Manhattan Institute, E.J. McMahon, estimated that it would cost the city 62,000 jobs. He made his estimate based on the State Tax Analysis Modeling Program, which models interaction between economic and tax variables using historical data. It seems that the mayor's own Office of Management and Budget may have reached similar conclusions to Mr. McMahon's: Between the mayor's November financial plan and the January adjustment – i.e. before and after the property tax increase – the administration has revised downward its estimate of the number of jobs in New York City in 2003 by 63,000.

**ITEP: Writing about CGE models in general, Charney and Vest (2003) note that “it is not clear how accurate they are quantitatively,” while Ackerman (2001) goes one step further, explaining that “there is ample evidence to show that forecasts based on CGE models have been quite inaccurate.”**

BHI: ITEP fails to understand how policy analysis works. Let's go over the rudiments: When state policy makers want to change a tax law they have to compare how the state economy would fare without the new law to know how it would fare with the new law. In fact, of course, no one knows for sure how the state economy would fare without the new law. Indeed, all one can do is make an educated guess. And that is even before the policy analysis begins. But we must make an educated guess or, simply throw up our hands and proceed blindly without any idea of what we are doing.

Thus, when BHI models a tax-law change it first lays out a “no-tax change” or “baseline” forecast for the five-year period ahead. To do this, we turn to state agency forecasts if they are available, and/or we contact the appropriate state government office or other entities knowledgeable about the state economy for assistance. Once we have the baseline forecast, we next model the changes to the baseline forecast that would result from a change in tax policy. Should the baseline forecast prove to be inaccurate, our modeling results would also reflect the inaccuracy of the baseline forecast. However, neither we, nor anyone else, can control for



factors such as an unanticipated real estate and banking crisis, which could determine how the economy actually fares under the baseline assumptions. Even if we are wildly wrong about the baseline forecast and therefore about the tax-change forecast, we are proceeding in the only fashion available to us – or anyone – who wants to contribute to the analysis.

This is not to say that we are always – or even mostly – wrong in our forecasts. Since 2003, the Joint Ways and Means Committee of the Massachusetts state legislature has called upon us to provide annual state tax revenue forecasts for a two-year fiscal window. We provide our forecast, at the Committee’s invitation every year in a public hearing conducted to prepare the budget for the next fiscal year. Our forecasts for the “out” fiscal year are inputs into the governor’s major budget statement, House 1.

Forecasting is more art than science, but it is an art at which we are thoroughly practiced and for which we are respected by Massachusetts government officials. Our forecasts generally outperform the one or two other forecasts made before the Committee.

ITEP’s real complaint, though, is not with our forecasting skills but with the whole idea of using CGE models. Such models do, as we readily admit, have their limitations. Most notably, they do assume that markets clear (when in fact they may not) and they require their users to make subjective judgments about a baseline forecast and about the appropriate elasticities. The question, again, however, is whether to use the best, most academically respectable modeling capability available (which the CGE model is) or use some far less reliable approach.

ITEP reveals that its real intention in attacking us is to condemn the idea of using *any* model that runs against the grain of its ideological convictions, to wit, that more government spending is always better than less government spending. While we are pretty sure that ITEP understands – or could be taught to understand – that any policy analysis is hostage to unpredictable economic “disturbances,” we find their eagerness to slip by this point to be intellectually disreputable.

Let’s see where ITEP leaves itself in attacking the CGE methodology we use. First, there is a reason why the CGE methodology beats the competition: It works. Given that there are dozens of interlocking economic sectors to consider in modeling a tax change, we need to use a computer program to determine how all the sectors change simultaneously in response to a tax change. Because tax changes affect the whole economy and because understanding how they affect the whole economy means understanding the linkages between the different sectors that make up the economy, we are compelled to work within a general equilibrium framework and to employ complex computer algorithms to solve for the economic effects we seek to identify.

Serious public finance economists have recognized all of this at least since Arnold Harberger’s famous 1962 article on [“The Incidence of the Corporation Income Tax.”](#) The difference between then and now is that Harberger worked with a model that had two sectors and now, thanks to 50 years of expanding computing power, STAMP has 78. Other CGE models can handle hundreds of sectors at a time.

We could write a book on how CGE models have evolved into the dominant methodology in studying, first, international trade policy and, now, tax policy. Fortunately, we don't have to. One good, readable book on the subject is [\*Introduction to Computable General Equilibrium Models\*](#) by Mary E. Burfisher, where one will find dozens of citations to academic articles on the subject. Our own model had its origins in [\*Dynamic Revenue Analysis for California\*](#) (Berck, et al 1996).

There is one further comment by ITEP on which we would like to say a few words:

**ITEP: Among the most glaring of STAMP's departures from reality is that: "the economy is assumed ... to run at full employment (by which we mean that there is no involuntary unemployment)."**

BHI: Here again, ITEP ignores the fact that the purpose of a policy model is to simulate long-run effects, which, by definition means simulating them under conditions of what ITEP calls "full employment." Granted that economies go through periods of economic contraction, state policy makers cannot realistically attempt to use tax policy to overcome the resulting problem of involuntary unemployment (that problem is more for the Feds to solve) or realistically employ a model that assumes anything other than full employment, if they are going to assess the long-run effects of the policy proposals under consideration.

It is important to recognize that, by assuming "full employment," as we do, we do not assume that the unemployment rate is zero. Rather we assume that the number of workers seeking jobs equals the number of job openings (i.e., that the supply of labor equals the demand for labor). There will always be some workers who are unemployed because they haven't found a job they want to take or because their qualifications don't match those required by prospective employers. All that we do is take off the table any argument that the government can create new jobs just by spending more. In a CGE model, government spending either crowds out personal consumption or simply transfers income from one consumer to another.

To see what our critics are getting at, we need to take another trip back to the last century, this time to a book, entitled *The General Theory of Employment, Interest and Money*, published in 1936 by the British economist, John Maynard Keynes. The two features of Keynes's book that are most relevant to the topic at hand are (1) that it was written to address the economic conditions of the Great Depression, which was in its 7th full year at the time of the book's publication, and (2) that it offered a tool, called the Keynesian multiplier, for measuring the effectiveness of the policy recommendations that came out of the book.

Keynes saw it as his purpose to replace the hitherto recognized economic paradigm, which he called the "classical" model, with a new paradigm that reflected the depth and persistence of the Depression. In the classical model, economic downturns, even severe economic downturns, were supposed to be self-correcting. The relevance here is that the classical model (whose assumptions mirror those of our CGE model) assumed that supply equaled demand except for

brief periods of imbalance between supply and demand, which would eventually be corrected by price and wage adjustments. It was the persistence of an excess supply of labor and goods over the decade-long Great Depression that concerned Keynes.

Given that the Great Depression was clearly not self-correcting, argued Keynes, it was necessary to forge a new approach that both explained that downturn and that provided a path back to more normal conditions. It was necessary to build a model in which the supply of goods and labor could exceed the demand for goods and labor over a protracted period of time and then to forge a policy prescription for increasing demand.

Keynes's approach turned the classical model on its head. Previously, saving was necessary for investment and therefore for production and employment. Now saving was a "leakage" from the spending stream that slowed the pace of economic expansion. Previously, government spending crowded out personal consumption. Now government spending provided a spur to consumption. Government could rescue the economy from a protracted downturn by using its tax and spending powers to boost aggregate demand.

In doing so, the government would take advantage of the Keynesian multiplier. Government could spend, say, another \$1,000 on some activity. It didn't matter if the activity was something useful like building a bridge or something wasteful like paying men to dig holes and fill them in again. Spending was spending. And this spending would cause production to expand by some multiple of \$1,000.

A key concept in computing the multiplier is the "marginal propensity to consume," or "MPC," defined as the additional consumption that another dollar of disposable income would yield. Suppose this MPC equals .5. An "injection" of \$1,000 in government spending would immediately bring about \$1,000 in new production. But then consumers would spend 50% of that, adding another \$500 to production. Then consumers would spend 50% of that, or \$250, leading to further new production and to further rounds of new consumption and production so that, at the end of the day, the initial "injection" of \$1,000 in government spending yielded altogether \$2,000 in new production. By spending only \$1,000, the government would cause production to rise by twice that amount: hence, the Keynesian multiplier.

A further wrinkle in this analysis is the Keynesian "balanced budget multiplier." This concept, which comes up in Keynesian models of state tax policy, begins with the idea that, just as government spending is good for the economy, taxes are bad (though for reasons unlike those considered by STAMP). Taxes are bad in this analysis because they reduce disposable income. Suppose that the government decided to raise taxes by \$1,000, rather than increase spending by \$1,000. Now disposable income would fall by \$1,000, and given an MPC of .5, consumption would fall by \$500, causing production to fall by the same amount. Then consumption and production would fall by another \$250, and so forth, until both had fallen by \$1,000.

Now suppose the government decided to raise spending *and* taxes by \$1,000. We get the following effects on production:

- Change in production from \$1,000 in new government spending =  
 $\$1,000 + \$500 + \$250 + \$125 + \dots + 0 = \$2,000.$
- Change in production from \$1,000 in new taxes =  
 $-\$500 - \$250 - \$125 - \dots - 0 = -\$1,000.$
- Adding:  $\$2,000 - \$1,000 = \$1,000.$

Voila! The simultaneous \$1,000 increase in spending and taxes has a net positive effect on the economy of \$1,000. Conversely, if the government had cut spending and taxes by \$1,000, the economy would have shrunk by the same amount. And interestingly, the result doesn't depend on the size of the MPC. Economic models that have built-in Keynesian elements show that a given increase in spending and taxes will expand the economy by that increase and that a given decrease in spending and taxes will contract the economy by that decrease.

The Keynesian model dominated economic thinking well beyond the end of the Depression and until the early 1970s, when "stagflation" cast doubt on its applicability to current conditions. Thereafter, economists started to rehabilitate the previously discarded classical model, causing mentions of Keynes to disappear almost entirely from the academic literature and to receive less and less consideration in college textbooks.

The recent economic downturn did, in fact, breathe new life into the Keynesian corpse. But the failure of the economy to respond measurably to the 2009 "stimulus" policies suggests that this renewed life has faded. The current economic weakness appears to be due, not to an insufficiency of government spending aimed at increasing aggregate demand, but to uncertainties surrounding Obamacare and Dodd-Frank and to safety-net measures that deter people from taking jobs, all of which operate on the supply-side of the economy.

We need to point out all of this because it is necessary to know where ITEP is coming from when it criticizes us over the "full employment" issue. ITEP is just implying that we should be more "Keynesian" in our approach. We should treat government spending as good for the economy and taxes as bad only insofar as they reduce disposable income. The little secret that ITEP and the whole tax-and-spend lobby doesn't want to reveal is that the balanced budget multiplier makes it all good for the government to raise spending *and* taxes. What ITEP doesn't want to talk about is the absurdity of applying to state policy a methodology under which a state government can make the economy as big as it wants merely by spending more, even if it also has to raise taxes in order to satisfy state balanced-budget rules.

We prefer the alternative approach, which is to revert to classical arguments that government spending crowds out consumption and that taxes matter, not for how they affect disposable income, but for how they affect incentives to work, save and invest. Reductions in tax rates, as they apply to income taxes, increase the reward to work, save and invest and, through that

mechanism, cause production to expand. This “supply-side” approach makes sense insofar as the demand-side palliatives called for by the Keynesian model seem to have lost their relevance decades ago. No one outside of some other modeling organizations of which ITEP seems much enamored takes the idea of the balanced budget multiplier seriously anymore.

It is the position of the Beacon Hill Institute that, in modeling tax policy, Keynes’s ideas work well, insofar as they do at all, for considerations of federal policy changes in an economy that is clearly depressed owing to a lack of aggregate demand. The federal government can influence national economic conditions through Keynesian policies since it can run budget deficits and print money, whereas state governments can do neither. Furthermore, the federal government doesn’t have to concern itself as much with the outmigration of capital, jobs and consumer activity in the way that the states do when it comes to raising taxes.

Economic models that use Keynesian multipliers to rationalize individual projects, such as building a sports arena in a depressed area, are fine as far as they go. But state policy makers should be wary of models that presume to justify increased government spending as a cure for involuntary unemployment. The Keynesian view that the path to economic expansion lies in government spending does not fit the facts of the current economy even at the national level. It certainly has no bearing on policy making at the state level.

Some final thoughts: Anyone who might take the ITEP report seriously should ask its authors two simple questions: (1) Do they mean to condemn the idea of applying the CGE methodology, in general, to state tax policy analysis? Or (2) do they want to accept that methodology as valid but debate the particulars of the STAMP CGE model with respect to such matters as how we treat government employees and how we choose elasticities? If (1), then ITEP should be prepared to challenge the vast literature that the CGE methodology has spawned over the last few decades and to explain why it is that several state governments now use CGE models in their own analyses. It should also be prepared to explain just what methodology it would employ were it to tackle the problem of state tax policy analysis. If the answer is (2), then we would invite a friendly, academic debate over the particulars they wish to challenge. Maybe someone will let us know what they have to say about both questions.

## **References**

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