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What We Do and Don't Know about Discretionary Fiscal Policy

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There is a lack of consensus about the effects fiscal policy measures may have during a recession. But we can draw some general conclusions from economic theory.

At one time, the idea that the government should respond to an economic downturn by using fiscal policy to stimulate aggregate demand would have been met with little dispute among economists. Such actions follow the "Keynesian" school of thought on fiscal policy, named after John Maynard Keynes who laid its groundwork in 1936 with his *General Theory of Employment, Interest, and Money*.

However, by the 1970s Keynesian thinking on discretionary fiscal policy (that is, fiscal policy that is implemented to stabilize the economy around business cycles) fell out of favor with economists and policymakers alike. Fiscal policy entailed significant lags between the time it became evident that countercyclical fiscal policy was needed and when policy could actually impact the economy. When the 1970s saw stagflation, or concurrent falling output and rising prices, policymakers were convinced that a new strategy was needed, and focus soon turned to the importance of monetary policy.¹

By the early 1980s, monetary policy enjoyed greater credibility, and a consensus emerged that it was a much more successful tool than fiscal policy for dealing with worsening macroeconomic conditions. Some economists argued that there may be a role for discretionary fiscal policy only should monetary policy hit the "zero bound" — that is, when the policy interest rate approaches zero, a very rare occurrence indeed.

This, of course, is exactly what has transpired following the recession that began in December 2007. In December 2008, the Federal Open Market Committee, the Fed's policymaking body, established a range for the target federal funds rate, its primary policy instrument, from zero to twenty-five basis points. Once interest rates fall this low, the Fed is limited in what else monetary policy can do to stimulate the economy. This does not mean the Fed is powerless to address the recession; for example, it has undertaken "credit easing," in which the Fed supplies large amounts of liquidity by purchasing a variety of securities, even though the fed funds rate stays the same. Regardless, the severity of the downturn has led many economists and policymakers to reconsider the role of discretionary fiscal policy in counteracting the recession.

We are in a peculiar position, however, regarding fiscal policy. Because monetary policy has been the tool of choice for managing business cycles for several decades, the literature on the theoretical and practical

implementation of discretionary fiscal policy is not nearly as developed. Furthermore, economists differ famously on models that purport to explain how fiscal policy affects the economy. Keynesian models tend to focus on stimulating aggregate consumption in order to boost employment and economic output in a downturn, whereas Neoclassical models focus on the process of resource reallocation following a shock from less productive to more productive uses, to move employment and prices back to equilibrium. They focus on different determinants of economic growth — the former on aggregate demand, the latter on aggregate supply. Many of the disagreements economists have over fiscal policy fundamentally address the extent to which government provided goods and services can enhance private economic activity. Specifically, economists differ on the nature of assumptions within economic models that determine how fiscal policy would impact the economy, yielding different fiscal policy prescriptions in the face of an economic downturn.

Despite these differences, economists are not doomed to disagree on discretionary fiscal policy. Models haven't yet been created that incorporate all the "frictions" in implementing fiscal policy that we know exist in reality. The result is that no matter which assumptions in theoretical models one thinks are correct, what theory prescribes and what works in practice can often be different. Therefore, it is also practical to evaluate the likely effects of discretionary fiscal policy through a cost-benefit analysis. The purpose of this *Economic Brief* is to map out factors that would be relevant in a cost-benefit analysis of discretionary fiscal policy so that readers can draw their own informed opinion on the matter.

ADDRESSING AN ECONOMIC DOWNTURN

Suppose the economy is hit by a negative business cycle shock that, among many possible outcomes, reduces employment and overall economic output. In the current recession, this took the form of a severe housing downturn that transcended into a financial crisis that significantly hindered overall economic activity.

It would be possible for policymakers to simply leave the economy alone, since economists believe that an economy that has experienced a negative shock will gravitate back toward its potential level of activity eventually. However, this process can be lengthy and quite costly in terms of lost income, jobs, and a host of other potential outcomes. In practice this process would be aided by "automatic stabilizers," or taxation and spending rules already existing in the government's budget that cushion losses to disposable income inversely with the business cycle. Still, the more severe the downturn, the less likely policymakers are to leave the economy alone to correct itself.

Policymakers may instead look toward more active policies to buffer the economic downturn, such as monetary policy. In a traditional downturn,

the Federal Reserve will lower interest rates to stimulate business investment and consumer spending, thereby restoring output. Despite being constrained by the zero bound, the Fed has in the present recession actively pursued alternative ways to provide liquidity to financial markets. In addition, most economists agree that troubles in banking and financial markets are the fundamental problem that needs to be addressed. However, the severity of the downturn has led to a renewed debate over using fiscal policy, too, to buffer the economic downturn.

In this vein, the goal of discretionary fiscal policy can reasonably be stated as mitigating losses in jobs and output resulting from a negative business cycle shock.² In addition, the point of fiscal stimulus is to affect jobs and output during the economic downturn, as opposed to impacting the economy after a recovery is already underway.

TURNING TO FISCAL POLICY

Fiscal stimulus generally takes the form of tax reductions (reductions in government revenue) or spending increases (greater government outlays). Stimulus-related tax cuts are intended to boost individuals' disposable (after tax) income and thus boost consumption and aggregate demand.³ Consumption is 70 percent of overall gross domestic product, so consumers are a natural target for economic stimulus. Through government spending stimulus, the government funds the production of goods and services (either by subsidizing private activity or by increasing government activity itself), and, by doing so, has the potential to offset the negative shock by providing employment to both human and capital resources that have been adversely affected by the negative shock to output.

Much discussion around fiscal stimulus centers on the size of the "multiplier," a measure of whether each dollar of government spending or tax cuts boosts output by less than a dollar (where the multiplier is less than one), more than a dollar (more than one), or a exactly a dollar (equal to one). Estimates of the multiplier vary widely in economic literature, but for purposes of a cost-benefit analysis, what matters is whether factors that enhance a stimulus package's effectiveness are likely to dominate factors that detract from its effectiveness.

STIMULUS THROUGH TAX CUTS

Stimulus-related tax cuts for individuals can come in the form of a lump-sum tax rebate or a cut in tax rates. The effectiveness of each is determined by whether people spend the corresponding increase in disposable income and, if so, when.

Timing for tax cuts is relatively straightforward: when tax cuts impact the economy depends on how quickly they're implemented (when they put "cash in hand"), whether people react to an announcement of coming tax

cuts in advance of their implementation, and how quickly people spend whatever portion of them they ultimately use for consumption.

Most analyses of tax cuts reference the "permanent income hypothesis," which states that consumers prefer to avoid disruptions in their level of consumption from one period to the next, so they draw down savings in bad times and save in good in order to "smooth" consumption over their life. According to this theory, changes in income will only have a large effect on consumption behavior if the changes are permanent. This implies that tax rebates and temporary tax cuts should have no large effect on consumption, while permanent tax decreases should cause relatively large increases in consumption.

A common argument against the efficacy of tax cuts, even permanent ones, as stimulus to the economy is "Ricardian equivalence," which says that consumers who receive a tax cut are able to foresee that the tax cut must be paid for by a future tax increase, causing them to save the entirety of the tax cut with no boost to consumption. In order for Ricardian equivalence to hold in reality, individuals must be forward-looking, and they must care enough about the future consumption of themselves or their heirs to change their behavior as a result. If so, they may save the tax cut to pay for the future tax increase, or leave bequests to their children to do the same.

The inherent contradiction in cutting taxes to stimulate a limping economy is that theory implies tax cuts must be permanent to have a large impact on consumption, but fiscal stimulus is used to address a temporary problem (the economic downturn). Thus, it may not be credible for the government to announce tax cuts as being permanent, either because people presume that other fiscal priorities will prevail after the downturn has passed, or because individuals judge that the government will raise taxes in the future to finance the present tax cut. This is an understandably opaque issue for consumers, even if they are forward-looking, since the U.S. government has in recent history appeared able to run deficits for quite some time with no obvious macroeconomic side effects.⁵

There is one condition under which any type of tax cut might be used to increase consumption more than basic theory suggests. Consumers who face borrowing constraints (such as difficulty getting a car loan or a credit card) are more likely to use a tax cut to make a purchase for which they have not been able to save an adequate amount. For this reason, individuals who are poorer have a higher marginal propensity to consume (MPC) out of an increase in income. Further, borrowing constraints mean these consumers must wait until the given tax cut is "in hand," implying they are not likely to react to an announced tax cut until it has actually been implemented.

A final way in which tax cuts may boost output is if they improve incentives to work. This effect is exacerbated the more progressive the tax system is because the marginal tax rate (the increased tax rate you face with each additional dollar of income you earn) is higher under such a system. When individuals choose to work more (increase their labor supply), they often consume out of the added income they receive, which boosts economic activity.

Empirically there is great uncertainty on the effects of tax reductions enacted as part of economic stimulus, since there have been very few episodes in history of stabilization-focused tax cuts from which to test.⁶ Also, measuring the impact of tax cuts implores economists to separate out changes in output that are a direct result of the tax cut from changes in output that are occurring anyway, as from business cycles. One consensus of empirical studies is that borrowing constraints are a very important determinant of whether tax cuts or rebates are spent.⁷

STIMULUS THROUGH GOVERNMENT SPENDING INCREASES

In the textbook version of a spending stimulus, following a negative shock to the economy the government will quickly pass and implement a spending program applied directly to the human and capital resources in the economy that have become idle as a result of the shock. As the government works to employ idle resources, economic activity falls less than it would have in the absence of government intervention, achieving the goal of quickly buffering losses to jobs and output.

Clearly this process is much more complex in reality. Timing alone can impede successful stimulus spending. The current recession was not identified as such by the National Bureau of Economic Research until December 2008, a full year after it began. Generally speaking, implementing a stimulus package in time for it to address the downturn entails a very quick turnaround between the time we figure out we are in a recession (and indeed one bad enough to warrant a stimulus package) and the time the government can agree on and pass a specific stimulus package. Further, for stimulus spending to affect the economy during the downturn, the projects must be able to be implemented quickly: projects must be "shovel-ready" (not requiring significant planning, research, and development) and must be possible to implement without "bottlenecks" (overburdening an industry with projects beyond its capacity to produce in a timely fashion).

HOW TO SPEND WISELY

By far the largest hurdle of government spending stimulus is *what* to spend on. To be successful, stimulus spending must be targeted to uses where there are idle resources. Alternatively, if stimulus spending is targeted to industries that are at full employment, they will be forced to compete with private projects for resources. For example, if there is full

employment in road repair, then the government cannot *stimulate* road repair without draining construction workers from another project, reducing the amount produced in that other endeavor. In this case government spending displaces private economic activity. Furthermore, workers shifted to these new uses may not be as productive at them as in what they were previously doing. These "human capital leakages" need not be significant; for example, a worker who moves from constructing bridges to repairing roads may find the skill sets match quite well, with minimal losses in productivity. For workers who move from very different industries, however, the losses of human capital may be larger and may take time to correct as workers get trained in their new uses.

Despite human capital leakages, it may still be socially beneficial for government spending to displace private spending if it creates output that is more highly valued than the projects it displaces. However, since the government does not face the market test for efficiency that private enterprises do (it faces no competition and thus no profit motive), projects chosen by the government can be less highly valued than the market-driven projects they displace. Thus, to the extent that private economic activity is displaced and human capital adjustments are significant, the impact of stimulus spending will likely be reduced.

The government can avoid displacing private economic activity completely if government spending is targeted to resources that are idle, since employing them in nearly any way will be a productive improvement that will add to economic output. In one extreme, government spending will have to target stimulus spending *exclusively* to idle resources.

Three factors determine the government's ability to target stimulus spending toward idle resources. First, doing so requires the government to have perfect information about where resources are idle. In theory the government would have to identify specific firms that have laid off workers and capital; in practice, the government might start by looking at unemployment rates across industries. Second, stimulus spending will affect complementary inputs. For example, since construction workers do not work alone, stimulus on road repair will also affect the markets for trucks, shovels, and concrete. To the extent that trucks, shovels, and concrete were less adversely affected by the economic downturn, some of the government's spending will compete with private resources for use of those inputs, offsetting production elsewhere. Third is the political reality that politicians face pressure to direct spending toward projects that are of local interest, as opposed to being beneficial for immediate boosts to the economy.

The first two factors imply it is not reasonable to expect that the government *can* target spending exclusively to idle resources; there will always be some degree of waste. The third factor detracts from the likelihood that government will *choose* to target the bulk of spending to idle resources.

A caveat is in order. If the government is able to successfully target stimulus spending mostly toward idle resources, it still may not be desirable to do so, for it matters why those resources were idle in the first place. Were they idle because of a spillover from the overall economic downturn, or is the firm or industry experiencing an overall structural shift downward that has simply been intensified from the economic downturn? Declining industries may well be successful targets for economic stimulus in the sense that it boosts their production in the short run, but it does so at the expense of subsidizing moribund firms in the long run. Such actions keep resources in inefficient uses at the expense of lost opportunities elsewhere. Economic stimulus, arguably, should not impede these market-driven structural shifts in the economy.

A famous parable of stimulus spending is that the government could successfully stimulate the economy by paying people to repeatedly dig holes and fill them up again. While this would certainly employ people and add to economic activity in the accounting sense, it would, arguably, not produce anything or provide a valued service. Further, the job would disappear as soon as stimulus funds went away, with no lasting benefit on the economy. Thus, a common argument is that government stimulus spending should, to the extent possible, add to the productive potential of the economy. However, projects that have these long-run benefits often entail longer planning and investment stages than projects that will provide short-run stimulus. While such projects may be well-justified because of their longer-run benefits, and can thus gain traction under the momentum of increasing government spending, they should not be confused with economic stimulus if they are not likely to impact the economy during the downturn.

LONG-RUN CONSIDERATIONS

We have focused this discussion entirely around what makes a stimulus package successful as a timely buffer to the economic downturn. This is a short-run goal that ignores many possible outcomes of a stimulus initiative. Chief among these other concerns are:

- Long run efficiency: As mentioned above, stimulus spending targeted to idle resources risks subsidizing inefficient firms or industries. To avoid this, it should be directed to industries that are idle as a result of the economic downturn, not a longer-run decline.
- Concerns over the national debt: Both tax cuts and spending increases add to the budget deficit (reduce the budget surplus) and thus bode negatively for government debt. Whether this is perilous is an unresolved issue in macroeconomics. In theory the economy can run a deficit forever as long as its rate of economic growth plus the rate of inflation is high enough to finance the interest it must pay on its debt. However, if the government must borrow substantially to fund the stimulus, it may cause upwards pressure on interest rates, reducing the length of time over which the government can

- sustainably run a deficit without macroeconomic consequences.
- Ratchet effect: Are spending increases permanently increasing the size of government? Spending programs can develop a life of their own that often makes them longer-term than originally intended.
- Issues of equity: If tax cuts reduce distortions by reducing the progressive nature of the tax code, is that desirable?

Finally, if there is a financial crisis, all bets could be off. Such crises can interrupt the flow of resources through the economy, which can reduce the impact of any type of government spending (or private spending for that matter). Historically, recessions in which there is also a financial crisis, or that have been precipitated by a financial crisis, are longer in duration.

SUMMARY

While monetary policy is the preferred tool among most economists for blunting the negative effects of economic downturns, it is limited when it hits the zero bound, resulting in renewed interest in fiscal policy to stimulate the economy. Fiscal stimulus is a daunting undertaking. There is a lack of consensus on how fiscal policy measures to stabilize the economy are likely to play out, but we can draw some general conclusions from economic theory:

A tax cut is more likely to be effective as stimulus if it:

- Is implemented quickly
- Is permanent
- Reduces distortions, and thus provides incentives to work more
- Is targeted to consumers most likely to spend them:
 - Those who are borrowing constrained (if it is possible to identify them)
 - Lower income households with a higher MPC

A stimulus spending initiative will be most effective if it:

- Is implemented quickly on projects that are "shovel ready" and without "bottlenecks"
- Targets idle resources that are idle due to spillover effects of the economic downturn, not a longer-trend decline
 - To the extent that it is targeted to resources that are not idle:

- There are minimal human capital leakages as resources move
- The government-sponsored projects are of higher value than the private projects that are dispalced.

The fiscal stimulus process is rife with paradox. Tax cuts should be permanent to have a large impact on consumption, but tax cuts announced as being permanent may not be credibly so, undermining their impact. Spending programs must be implemented quickly to impact the economy during the recession, but spending for short-run gain is often at odds with long-run goals. It is unfortunate that we don't have better answers to these questions at a time when the economy is in recession. As a result, some economists would argue against using discretionary fiscal policy in the current environment, concluding that its potential benefits are outweighed by costs. We will undoubtedly learn a great deal from the 2009 American Recovery and Reinvestment Act that we can apply the next time fiscal stimulus is considered.

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ENDNOTES

- ¹ Blinder, Alan. 2004. "The Case Against the Case Against Discretionary Fiscal Policy." Center for Economic Policy Studies Working Paper 100, Princeton University.
- ² Government spending increases or tax reductions when the economy is at full employment may have very different effects than what are discussed here. For example, see: Romer, Christina, and David Romer. 2007. "The Macroeconomic Effects of Tax Changes: Estimates Based on a New Measure of Fiscal Shocks." National Bureau of Economic Research Working Paper 13264.
- ³ Of course, tax cuts for stimulus purposes can take many forms in addition to tax cuts to individuals. Common examples include investment credits and changes to sales taxes. Such tax changes are explicitly advertised as being temporary to encourage consumers and businesses to move consumption in the future to today. For a review of the literature on these see Blinder (2004).
- ⁴ Barro, Robert. 1979. "On the Determination of the Public Debt." *Journal of Political Economy* 87: 946-971.
- ⁵ Blinder (2004).
- ⁶ Romer and Romer (2007).
- ⁷ Blinder (2004).

