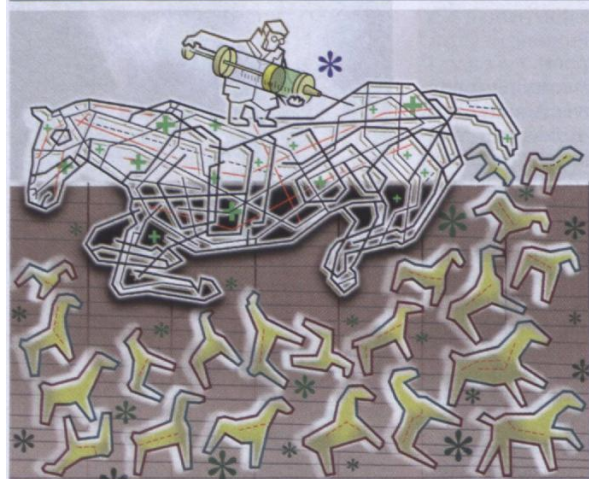


Economics focus | Much ado about multipliers

Why do economists disagree so much on whether fiscal stimulus works?



IT IS the biggest peacetime fiscal expansion in history. Across the globe countries have countered the recession by cutting taxes and by boosting government spending. The G20 group of economies, whose leaders meet this week in Pittsburgh, have introduced stimulus packages worth an average of 2% of GDP this year and 1.6% of GDP in 2010. Co-ordinated action on this scale might suggest a consensus about the effects of fiscal stimulus. But economists are in fact deeply divided about how well, or indeed whether, such stimulus works.

The debate hinges on the scale of the “fiscal multiplier”. This measure, first formalised in 1931 by Richard Kahn, a student of John Maynard Keynes, captures how effectively tax cuts or increases in government spending stimulate output. A multiplier of one means that a \$1 billion increase in government spending will increase a country's GDP by \$1 billion.

The size of the multiplier is bound to vary according to economic conditions. For an economy operating at full capacity, the fiscal multiplier should be zero. Since there are no spare resources, any increase in government demand would just replace spending elsewhere. But in a recession, when workers and factories lie idle, a fiscal boost can increase overall demand. And if the initial stimulus triggers a cascade of expenditure among consumers and businesses, the multiplier can be well above one.

The multiplier is also likely to vary according to the type of fiscal action. Government spending on building a bridge may have a bigger multiplier than a tax cut if consumers save a portion of their tax windfall. A tax cut targeted at poorer people may have a bigger impact on spending than one for the affluent, since poorer folk tend to spend a higher share of their income.

Crucially, the overall size of the fiscal multiplier also depends on how people react to higher government borrowing. If the government's actions bolster confidence and revive animal spirits, the multiplier could rise as demand goes up and private investment is “crowded in”. But if interest rates climb in response to government borrowing then some private investment that would otherwise have occurred could get “crowded out”. And if consumers expect higher future taxes in order to finance new government borrowing, they could spend less today. All that would reduce the fiscal multiplier, potentially to below zero.

Different assumptions about the impact of higher government borrowing on interest rates and private spending explain wild variations in the estimates of multipliers from today's stimulus spending. Economists in the Obama administration, who assume that the federal funds rate stays constant for a four-year period, expect a multiplier of 1.6 for government purchases and 1.0 for tax cuts from America's fiscal stimulus. An alternative assessment by John Cogan, Tobias Cwik, John Taylor and Volker Wieland uses models in which interest rates and taxes rise more quickly in response to higher public borrowing. Their multipliers are much smaller. They think America's stimulus will boost GDP by only one-sixth as much as the Obama team expects.

When forward-looking models disagree so dramatically, careful analysis of previous fiscal stimuli ought to help settle the debate. Unfortunately, it is extremely tricky to isolate the impact of changes in fiscal policy. One approach is to use microeconomic case studies to examine consumer behaviour in response to specific tax rebates and cuts. These studies, largely based on tax changes in America, find that permanent cuts have a bigger impact on consumer spending than temporary ones and that consumers who find it hard to borrow, such as those close to their credit-card limit, tend to spend more of their tax windfall. But case studies do not measure the overall impact of tax cuts or spending increases on output.

An alternative approach is to try to tease out the statistical impact of changes in government spending or tax cuts on GDP. The difficulty here is to isolate the effects of fiscal-stimulus measures from the rises in social-security spending and falls in tax revenues that naturally accompany recessions. This empirical approach has narrowed the range of estimates in some areas. It has also yielded interesting cross-country comparisons. Multipliers are bigger in closed economies than open ones (because less of the stimulus leaks abroad via imports). They have traditionally been bigger in rich countries than emerging ones (where investors tend to take fright more quickly, pushing interest rates up). But overall economists find as big a range of multipliers from empirical estimates as they do from theoretical models.

These times are different

To add to the confusion, the post-war experiences from which statistical analyses are drawn differ in vital respects from the current situation. Most of the evidence on multipliers for government spending is based on military outlays, but today's stimulus packages are heavily focused on infrastructure. Interest rates in many rich countries are now close to zero, which may increase the potency of, as well as the need for, fiscal stimulus. Because of the financial crisis relatively more people face borrowing constraints, which would increase the effectiveness of a tax cut. At the same time, highly indebted consumers may now be keen to cut their borrowing, leading to a lower multiplier. And investors today have more reason to be worried about rich countries' fiscal positions than those of emerging markets.

Add all this together and the truth is that economists are flying blind. They can make relative judgments with some confidence. Temporary tax cuts pack less punch than permanent ones, for instance. Fiscal multipliers will probably be lower in heavily indebted economies than in prudent ones. But policymakers looking for precise estimates are deluding themselves. ■

A list of relevant papers is available at Economist.com/multipliers

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