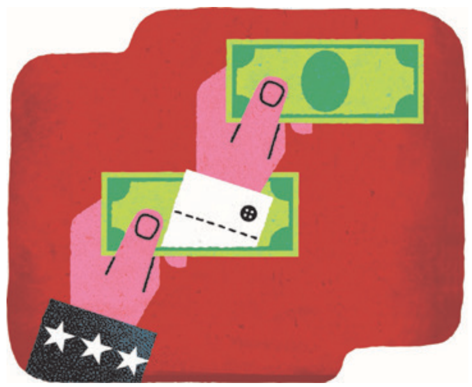
JARGON ALERT

Fiscal Multiplier

BY RENEE HALTOM

When the government spends money or cuts taxes, by how much does overall economic output change? The answer is called the "multiplier" on government spending. A multiplier of one, for example, means that an added dollar of government spending boosts economic output by a dollar.

The size of the multiplier matters because it indicates the potential effectiveness of the government's efforts to boost the economy. But it is exceedingly hard to estimate. The government tends to undertake stimulus precisely when the economy is weak — but because the economy is already behaving in a certain way, it is statistically hard to isolate the economy's response to fiscal policy. And if a spending package is announced far in advance, people may respond in anticipation, making it hard to identify the effect of the actual spending.



One popular way to overcome this problem is to look at instances where extra spending took place at the local level for reasons separate from local economic conditions — if economic activity responds in lockstep with the stimulus, it's more likely they're linked. Using this method, Richmond Fed economist Marios Karabarbounis and co-authors used regional variations in federal spending under the 2009 American Recovery and Reinvestment Act. The law's massive fiscal stimulus package of $840 billion included $228 billion in government contracts, grants, and loans, of which the researchers identified $46 billion spent locally based on factors like household characteristics rather than local economic conditions. Aggregating local multipliers to the national level, they estimated that a one-dollar increase in spending boosts consumer spending by about 64 cents — for a multiplier of 1.64. Other recent studies have provided a wide range of estimates of the multiplier, from 0.5 to 2.0.

Economic theory does provide some guidance on which fiscal policies are likely to produce bigger versus smaller multipliers. One important insight is that people generally "smooth" their consumption across time — rather than spending all of a one-time gain immediately, they'll spread it over months or years. For this reason, economists argue that temporary tax cuts or one-time rebates are likely to have a smaller multiplier than permanent tax changes. But one challenge for fiscal policymakers in a recession is that it might not be credible to announce a permanent tax change in response to a temporary recession — people might expect the policy to be undone once the need is gone, muting the multiplier. Another factor is that not all households respond the same to a tax cut or a tax increase — so who benefits and who bears the cost of a fiscal effort can affect the size of the multiplier.

Research has typically assumed that a multiplier is symmetric — that is, the effects of a fiscal change are the same size whether the spending is going up or down. But it's not hard to imagine why there might be different magnitudes for tightening versus loosening. Households might be constrained from borrowing when their incomes fall, or wages and prices may be less likely to fall in bad times than they are to adjust upward in good times. Research from Richmond Fed economist Christian Matthes and the San Francisco Fed's Regis Barnichon found that multipliers from spending contractions might be twice as big over the business cycle as they are for spending increases, peaking in recessions. Their results both weaken the case for fiscal stimulus and provide some caution against fiscal austerity.

The overall economic environment also matters. Standard economic models predict the government spending multiplier to be much larger when interest rates are very, very low. In fact, standard models predict lots of economic phenomena behave unexpectedly at the so-called "zero lower bound." The reason is that at low interest rates, the real interest rate — the nominal rate adjusted for inflation — is close to negative territory. If a fiscal boost produces inflation, the real interest rate could tip negative and penalize households for saving. That induces them to spend more today, adding to any boost in demand resulting from government purchases. A popular workhorse model suggests the government spending multiplier might be as large as 3.7 at the zero lower bound.

The overwhelming conclusion of research on fiscal multipliers is that they depend critically on the environment and design of the fiscal package. Moreover, economists are quick to caution that the multiplier is not the only success measure of fiscal policy: The taxes that fund fiscal stimulus can distort economic activity; the long-term budget impact may reduce future economic activity; and whether the dollars are spent on things that make the economy more productive over time can make the long-run multiplier much bigger. Suffice it to say, there is no "one" multiplier. **EF**

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