

The Myth of the Spending Multiplier

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Most economics textbooks include the doctrine of the macroeconomic spending multiplier. This doctrine says that an increase in spending gets multiplied into an increase in overall output and income many times more than the initial spending. For example, if government spends another billion dollars, gross national product, or total output, could grow by \$10 billion. If that sounds like magic, it is indeed magical, but the fact is, there is no magic in economics. The spending multiplier is a myth, even if it is presented in almost all economics textbooks, and believed in by most economists.

There is an actual multiplier in the economy, but it is not a multiplier of goods. It is a money multiplier. Every bank loan creates money, because the borrower now has more money, and the depositors still have their previous money. Banks keep a small fraction of deposits on reserve, and loan out the rest. The borrower deposits his loan into some bank, which becomes a new deposit that the bank can loan out. So if the banks keep a tenth of deposits on reserve, an initial deposit of \$100 in currency can potentially get multiplied into \$1000 of extra money.

The British economist John Maynard Keynes said during the Great Depression that there is also a spending multiplier. He

said that economies were stuck in depression, and investors were too pessimistic to increase their spending for capital goods. When people save some of their income, there is less consumption, so with less consumption and discouraged investors, there is no growth. But government could come to the rescue. An increase in government spending would be multiplied into many times more spending, income, and production.

To understand the spending multiplier, we need a bit of mathematics. The equation for total spending is:

$$Y = C + I + G + X - M$$

where Y is total spending, C is consumption, I is economic investment (an increase in capital goods), G is government spending, X is exports, and M is imports. To simplify the explanation, we can assume that exports equal imports, and leave out (X-M).

Consumption depends on after-tax income and on how much of that income gets consumed rather than saved. The “marginal propensity to consume,” the portion of income used for consumption, will be designated by the letter b. The consumption function is

$$C = b(Y-T), \text{ where } T \text{ is taxes paid.}$$

Suppose people save ten percent of their income, so $b=.9$ and $(1-b)$, the portion of income saved, is $.1$. Now replace C with $b(Y-T)$:

$$Y = b(Y-T) + I + G.$$

When we solve for Y, we get:

$$Y = (1/1-b)(I + G - bT).$$

This equation for Y is the Keynesian determination of national income and spending. An increase in G gets multiplied by $(1/1-b)$. If overall savings is one tenth of income, then the multiplier is 10, so a billion dollars of more government spending results in a \$10 billion increase in total spending, thus also of total income and output. Better yet, if only one percent of income gets saved, the multiplier is one hundred! Every dollar of extra government spending gets multiplied into \$100 of output! That is why Keynesian economists believe that when the economy is depressed, savings is bad for the economy; saving reduces the multiplier.

One cannot argue with the mathematics of the multiplier. But one can argue with the economics. First of all, if the extra G comes from taxes T, then the multiplier is smaller, because we have to subtract more T. If $b=.99$, almost all the increase in G is offset by the increase in T. Likewise, if the extra G comes from borrowing within the country, that leaves less income for C and I. So we only get the full multiplier effect if the extra government spending is based on money that comes in from abroad.

The more fundamental error is that the Keynesian derivation of national spending depends on the consumption variable C being replaced by the consumption function, but with investment I left

unchanged. However, from where comes the funds for investment? It must come from savings, the portion of income not used for consumption. So there is an investment function similar to the consumption function:

$$I = (1-b)(Y-T).$$

Replacing I with this function,

$$Y = b(Y-T) + (1-b)(Y-T) + G.$$

When we cancel out the duplicated variables on both sides of the equation, we get $G=T$, or government spending equals taxes paid. There is no multiplier! There is no determination of Y from savings versus consumption!

A major theorem in economics is that investment comes from savings. If exports equal imports, then savings equals investment. Therefore, in a normal economy, more savings does not imply less spending, since the reduction in consumption is offset by an increase in investment. Only when something is already terribly wrong does savings get hoarded into cash rather than being borrowed for investment.

There can appear to be a spending multiplier when money comes in from abroad. Suppose a foreign tourist spends \$100 for shoes. The shoe seller now has an extra \$100, and uses this to buy corn. Now the corn grower has \$100, and buys more stuff. The foreign spending gets multiplied into a greater amount of total spending and production. As that \$100 keeps circulating,

there seems to be a spending multiplier of infinity as each seller gets more money to buy more goods.

This puzzle is solved by a barter example. Suppose a corn grower increases production by \$100. Total spending grows only by that \$100 of output. The corn grower trades his extra output for shoes of value \$100. The shoe maker does not make more shoes, as he has already optimized the amount of labor he seeks to engage in, relative to leisure. What happens is that an extra portion of others' output now goes to the corn grower, in trade for a portion of the extra corn. Nobody else will work more merely because the corn grower chose to work more.

Simplify this to a two-person economy, a corn grower and an apple grower. The corn grower increases his crop. He can now trade for more apples, but the apple grower does not plant more apple trees. The apple grower trades more of his apples for corn, since the corn grower offers to trade more corn per apple, but the apple grower does not grow more merely because his neighbor grows more corn. Therefore the increase in corn does not get multiplied into more apples. There is simply a greater amount of output from the greater amount of corn.

Now, to be fair to the Keynesians, there can be, under some circumstances, an output multiplier when an economy is depressed. When there are idle workers, idle capital goods, and idle land, then if an outsider comes in to buy goods, or somebody decides to produce more goods, this employs resources previously idle. If the shoe maker sells more shoes, and he would like to work more, the sale might stimulate him to

produce more shoes. If other idle workers likewise get stimulated, then total output will rise.

There can also be an output multiplier when the economy stays depressed due to credit constraints. Everybody wants to expand, but nobody will lend the funds to do so. If people form a credit union and make mutual loans, the constraint is gone. Farmer John now plants crops on the promise of future payment for his labor, and dentist Jane now cleans teeth on the promise of future payments by the patients. Everybody works more, on the promise to get paid later, and then workers pay back their loans from their greater wages.

But these real multipliers have nothing to do with savings versus consumption. The Keynesian multiplier was based on the false premise that one can decrease savings without affecting investment. That results in the futile policy of increasing government spending on the hope of a multiplier kicking in. Historically, the greater spending by Japan after the 1990 collapse of its real estate bubble did not stimulate its economy, and the deficits and money expansion in the USA after 2008 did not magically create high economic growth. The Keynesian spending multiplier is a myth.

Instead of spending more money, government can truly stimulate their economies in several ways. First, decrease the costs of production by reducing taxes on labor and goods. Second, push land to its most productive use by taxing the location value of optimal use regardless of current use. Third, eliminate credit constraints by removing excessive restrictions

on lending by banks, credit unions, and mutual aid organizations. Fourth, make property rights secure by abolishing the asset forfeitures and excessive eminent domain takings that make investment insecure.

Removing imposed costs, restrictions, and confiscations results in a real income multiplier. The real multiplier ultimately comes from more labor, not merely more spending.