The Daily Dish

Some “Stimulus” Math

DOUGLAS HOLTZ-EAKIN | JANUARY 14, 2021

Eakinomics: Some “Stimulus” Math

The *Wall Street Journal* and *Washington Post* are reporting that the incoming Biden Administration has begun to brief Congress on its plan for additional “stimulus” or “relief.” The language is unclear – but matters – and the math increasingly fuzzy. The *Post* notes, however, that “Biden said last week that it could cost in the multiple trillions of dollars.”

Let’s take a step back and look at the language and the math. If the goal is “stimulus,” then the idea is that the policy will spur additional growth in gross domestic product (GDP) above and beyond what would occur without new legislation. Viewed from this perspective, the problem is that GDP fell from its cyclical peak of $21,747.4 billion (at an annual rate) in the Q4 of 2019 to $19,520.1 billion (annual rate) in the Q2 of 2020. That is a decline of $2,227.3 billion at an annual rate, or an absolute decline of $556.8 billion. That is roughly the economic hole that needs to be filled.

The analysis of stimulus is documented nicely by the Congressional Budget Office. The basic notion is that policy changes (checks, unemployment insurance, Paycheck Protection Program) translate into direct changes in purchases of goods and services followed by “multiplier effects” that produce the ultimate increase in GDP. It estimates that a $1 change in checks, unemployment insurance, and state-local aid has a direct spending impact ranging from $0.42 to $0.89 over the 2020-2021 period (Table 3). Similarly, it estimates that the cumulative multiplier effects range from 0.38 to 2.50 (Table 2). So, using the high end, a $1 policy ultimately raises GDP by (0.89 x 2.50) $2.23, while the low end yields (0.42 x 0.38) $0.16.

The first lesson is that the enormous range is indicative of the state of the economic science in play; there simply isn’t much precision. The second is that at the high end, filling a $556 billion hole requires $250 billion policy stimulus, while at the low end it requires $3,475 billion. To date, there has been roughly $3 trillion in economic policy response to the coronavirus pandemic. Given the wide range in estimated impacts, one can easily see why there would be disagreement on the need to do more, and how much more.

The alternative way to look at these efforts is as “relief” – replacement of income to relieve the burden of the crisis with no pretense that there will be feedback effects that get the economy back to full operation. From this perspective, notice that personal income, excluding all government transfers, fell by $821 billion (annual rate) between Q4 of 2019 and Q2 of 2020, or an absolute decline of $210 billion. Using government policies to replace this lost income will require $210 billion a quarter, and the total cost will depend on how long one expects to have to continue the support.

In the end, the debate can be framed in terms of economic output (GDP) and stimulus or personal income and relief. Viewed from either perspective it is clear that the federal government has already done an awful lot to offset the pandemic recession. It is also clear that one could make the case that enough has been done, but also the case that there is the need for more. But it is increasingly difficult to use these policy goals to justify additional trillions of dollars.