

November 18, 2008

What do we know about infrastructure spending?

Recently, there's been a great deal of discussion about developing, legislating, and implementing a second fiscal stimulus. One of the prominent components mentioned in the recent stimulus discussion is investing in infrastructure to create jobs.

The appeal of this category of spending is fairly obvious, as it represents one aspect of a stimulus package that might be expected to have a long-term benefit to the economy. A criticism has been that infrastructure spending is too slow in implementation to be a good source of short-term stimulus, but Martin Neil Baily, senior fellow at the Brookings Institution, has [a couple of responses to that argument](#):

"... I am also aware of the objection to using infrastructure investment as a stabilization policy because it can be too slow to work. There are two ways in which this problem could be overcome: First, there is great need for improved maintenance of the infrastructure, including crumbling roads that need repair and bridges that may age prematurely or even collapse because they have not been looked after... Second, there are state and local projects that are being cancelled because of the short term budget pressures. Sustaining such projects would avoid layoffs that would otherwise take place."

So far, so good, but then the question turns to whether public investment on infrastructure really is a good long-term social investment. As always seems to be the case, the details can be tricky. A few years back, Bates College economist and Jerome Levy Institute Scholar David Aschauer provided [a good roadmap of the essential issues](#). There is a lot of empirical analysis in Professor Aschauer's paper, but here is the bottom line:

"... three questions pertaining to economic growth may be asked: Does how much public capital you have matter? Does how you finance public capital matter? and, Does how you use public capital matter? The empirical results presented in this article allow affirmative answers to each of these questions. Specifically, 10% increases in either the quantity or the efficiency of public capital are estimated to increase output per capita by 2.9% over 2 decades while a 10% increase in external public debt is estimated to decrease output per capita by 1.7% over the same time frame... The main lesson to be drawn from these findings is that in formulating economic development policies, countries are well advised to pay as much attention to how public capital is financed and used as to how much public capital is accumulated."

Aschauer's study was based on aggregate, cross-country data. In a Brookings Institution piece published about the same time as David's, New York Fed economist Andrew Haughwout considered [the evidence from our state and local Main Streets](#):

"Analysis of the effect of state and local government investment on state-level economic growth has provided a range of estimates, and debate about the exact magnitude of the effect continues. But most authors now seem to agree that modest increases in state public capital stocks would not dramatically raise state economic growth. In other words, that increasing public investment will not add much to a given state's ability to create jobs and wealth.

"Economists have been hesitant to give the policy advice, "Don't do it," because they recognize that some projects may have a beneficial economic effect even if the average one doesn't. They also realize that the productivity evidence does not take into account the direct household benefit of having a better infrastructure stock."

More than most of the currently popular stimulus ideas, the benefits of increased infrastructure spending really do seem to depend critically on the specifics. Best to think about those specifics sooner rather than later.

By [David Altig](#), senior vice president and research director, Federal Reserve Bank of Atlanta

November 18, 2008 in [Economic Growth and Development](#) | [Permalink](#)