Does infrastructure equal jobs? Not Really.

Even though countries invested heavily in infrastructure in the 19th and much of the 20th centuries, studies on the impacts of infrastructure on economic development have been inconclusive at best. Even when development economics began as a separate branch of economics, infrastructure continued to be referred to as a social overhead and often lumped as a source of technological change. Infrastructure continued to be ignored until 1989, when David Aschauer provided empirical analysis to explain the slowdown in US productivity with the slow down in infrastructure investments. Gramlich (1994) described Aschauer as hitting the magic button: "Aschauer's papers were followed by an unusual amount of attention to infrastructure from politicians and economists."

Twenty years have passed since Aschauer's work, but it is still very difficult to establish clear links between infrastructure investments and economic growth or sustained employment. However, this fact has not stopped politicians from continuing to rediscover investments in infrastructure because of the promise of jobs – the firm belief that infrastructure equals jobs.

In January 2009, Christina Romer and Jared Bernstein projected that a $775 billion stimulus package would deliver 3.67 million jobs to America, i.e., a hefty price tag of over $210,000 per job. This number could not be taken seriously since there was a lot of uncertainty surrounding the structure of the stimulus package at that time. The same month, the Political Economy Research Institute and the Alliance for American Manufacturing provided detailed data on jobs likely to be created by investing in infrastructure. According to the study, each billion in infrastructure investment would result in 9,819 to 17,784 jobs, depending on the sub-sectors. This implied a much more modest expenditure of $56,000 to $100,000 for each job-year created. Their recommendation was to invest, on an annual basis, $87-$148 billion for the next five years to rebuild America's crumbling infrastructure. The American Recovery and Reinvestment Act of 2009 (ARRA) allocated more than $150 billion so that infrastructure investments of this level would create the much-needed jobs for the construction and manufacturing industries.

The latest report of the Council of Economic Advisors (CEA) estimates that overall spending under ARRA has now stabilized at the rate of $85 billion per quarter and in their counter-factual world, the program is on track, generating overall GDP growth at the rate of 1.8% to 3.8%. Nearly two million jobs were saved or created as well in 2009. Several other forecasts had similar results too. In reality however, actual direct jobs created or saved was about 640,000 and only a very small part, just about seven percent in infrastructure sectors.

And this should come as no surprise. The relationship between growth and investment changes with the level of infrastructure. At lower levels of provision, infrastructure investments have strong positive effects on long-term economic growth, employment, market expansion, and competitiveness. The US's own experience showed that once the inter-state highway network was completed, additional productivity gains from new roads were insignificant. It is perhaps not correct to follow the Chinese or the Indian models of infrastructure development in the US at this stage because overall impacts are so context specific. It is very difficult to see a lack of infrastructure investments as a major source of loss of competitiveness. After all, the US holds second position on global competitiveness and has a very large stock of infrastructure assets.

The time has come to de-link infrastructure investments from the job-creation program, which only leads to inefficiencies and over-provision. A better, more accountable policy framework and basic cost-benefit analysis may help to select the right projects that will generate long-term global benefits. Investing in energy efficient transport may take much longer to plan, but is essential to ensure that the billions spent will not be in vain. A series of disparate shovel-ready projects will meet expenditure targets, but will deliver neither the jobs nor the long-term productivity gains the US needs so badly.

Posted by Rita Nangia on January 14, 2010