

# Gross domestic product vs. gross domestic well-being.

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SHORTLY after the planes slammed into the World Trade Center and the Pentagon last week, a reporter called to ask, "What effect will the terrorist attacks have on the economy?"

"That's the least of it," I replied. How can one even begin to consider the economic costs before the human toll is known? The reporter sheepishly confessed that his assignment was to cover "the least of it." Indeed, he himself was supposed to have been covering a conference in the World Trade Center that fateful morning and was lucky to have overslept and missed it. In the aftermath of the tragedies of Sept. 11, I find myself compelled to address "the least of it" as well.

Economists try to answer questions like this by looking at past experiences and relying on theoretical reasoning. Though there is nothing like these monstrous attacks to draw on, experiences with natural disasters might provide clues.

Most research finds that natural disasters like earthquakes and hurricanes have a relatively small impact on the economy. George Horwitch, a Purdue economist, provides a striking example in a recent study of the earthquake that struck Kobe, Japan, in January 1995, the most destructive ever in a modern city. Some 100,000 buildings were destroyed, and 250,000 damaged. More than 300,000 people became homeless, and 6,500 lost their lives.

Yet within 15 months manufacturing output returned to 98 percent of its pre-earthquake trend level. By July 1996, all department stores and 79 percent of small shops had reopened. Investment boomed. Similar stories can be told about Hurricanes Andrew and Hugo and other natural disasters.

Even the severe bombing of German cities in World War II did not deter growth after the bombing stopped. German output grew 148 percent from 1947 to 1955, and well surpassed its prewar level.

Some disasters, however, have caused lasting economic damage. For example, Newark never fully recovered from the riots of the 1960's. The rioting and the looting are believed to have undermined faith in the government and market there; by contrast, the terrorist attacks seem to have strengthened Americans' resolve to work together and trust their system and public servants.

The conventional wisdom is that disasters, natural and otherwise, typically have only a modest effect on economic activity because human capital -- the knowledge and skills embodied in the citizenry -- survives intact. In modern economies, human capital accounts for as much as 70 percent of national income.

Buildings and machines can be rebuilt, debris can be swept up; the key to production is people and human knowledge and skill, and a system that allows resources to be put to maximal use.

The economic costs are also dampened because output, including services, can be produced using different combinations of resources. Financial firms, for example, are cleverly finding new sources of office space, including

hotels.

Some economists have predicted that the tragic events in New York and Washington could possibly do some economic good by stimulating investment and unlocking the Social Security lockbox. But there is something profoundly wrong with the way we measure economic well-being if this tragedy leads to the conclusion that some economic good was achieved. Pain and suffering do not enter into national income statistics; destroyed buildings do not subtract from the gross domestic product; and the option of tapping the budget surplus was always available.

If the conventional wisdom is correct, the terrorist attacks -- horrific as they were -- are unlikely to knock economic production far off track a year from now.

The conventional wisdom might not be the end of the story, however. James R. Hines Jr. and Christian Jaramillo of the University of Michigan are studying the effects on economic growth of 728 earthquakes in 97 countries in the postwar period. Their results suggest that although severe natural disasters do not affect short-term growth, they do reduce G.D.P. around 2 percent three years later.

The reason is that after the investment boom subsides, the capital stock is still less than it otherwise would have been. In addition, disorganization and government missteps in reaction to disasters can curb longer-term growth.

Of course, the economy was already teetering on the brink of recession before the attacks. G.D.P. grew at a 0.2 percent annual rate in the second quarter of 2001, down from 5.7 percent a year earlier.

But focusing on whether the economy crosses a line into a recession -- which is just an arbitrary threshold -- misses the point that the reaction to the tragedy could affect the longer-term level of economic activity more than the direct effect of the destruction wrought by the attacks, and ignores the fact that economic well-being depends on much more than the G.D.P.

There is a limit to how much one can extrapolate from past disasters to the current situation. The impact of this tragedy would seem to depend on repercussions from at least three factors that cannot be predicted with any confidence.

The first is consumer behavior. Frankly, economists were already puzzled why consumer spending was so strong in recent months despite the stock market decline. Consumer confidence could plummet, dragging consumer spending down with it. Because consumer spending represents two-thirds of G.D.P., just a 3 percent drop in consumption this quarter would cause growth to contract at an 8 percent annual rate.

Second, the government's response is unknown, and the response to the government's response is also unknown. A war, if it occurs, could raise the price of oil and weaken the economy, as it did during the Persian Gulf war. Even without a war, a large call-up of reserves could disrupt civilian production.

It is also possible that the United States would turn inward and restrict trade and immigration.

Third, failures in leading industries, like finance and transportation, could impair the economy. These industries are critical because they facilitate trade and investment in other sectors. Although the financial markets are functioning and most financial firms are back on their feet, many airlines face the risk of insolvency.

The concrete forecasts of economic recovery or decline proffered by pundits stand in sharp contrast to the cautious and deliberate approach exercised by public officials in determining the casualties and perpetrators of this heinous crime. For now, the economic watchword should be uncertainty. And uncertainty itself is usually not good for the economy.